UPJOHN ADVERTISING: THEN AND NOW

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ABSTRACT

UPJOHN ADVERTISING: THEN AND NOW

by Robert Warren Royle

Upjohn Advertising: Then and Now presents no problems, documents no field research, offers no original marketing plans. It is a report dealing only in established fact with a minimum of opinion. Its subject is The Upjohn Company of Kalamazoo, Michigan, and the several facets of its marketing operations. This subject is discussed in depth, considering the company's past and present and touching briefly on its future.

A considerable number of sources were employed in the preparation of the report. Of particular value were the author's own past papers concerned with The Upjohn Company, the book Medicine Makers of Kalamazoo by Leonard Engel (McGraw-Hill, 1961), and various conversations with several executives of the Marketing Division of The Upjohn Company.

The report is roughly split into two parts: a case history of Upjohn advertising and a case study of several areas of present concern. An appendix is included with the text of the report which contains a number of samples of Upjohn advertising among other information.

Part One of the paper includes the first four chapters, which trace the company's marketing activities from their inception in 1886 to the present. The development of the company as a whole, of specific products, and naturally of promotional activities are all considered. One of the chapters in Part One is devoted to the story of the

development and marketing of Phenolax, a product which was vital to the company's growth.

Part Two of the paper considers a number of areas of special importance to The Upjohn Company and special interest to the author.

The question of government regulation of the drug industry in general and The Upjohn Company is discussed at length. The various approaches to drug regulation taken by the Federal Trade Commission, the Food and Drug Administration, and the Kefauver Subcommittee on Antitrust and Monopoly are considered in relation to their effect on drug advertising.

The success of Orinase, the first oral antidiabetic agent, is considered in depth. Diabetes and the development and marketing of antidiabetic drugs from insulin to Orinase are discussed. Further, some interesting parallels are drawn between two of the company's greatest successes, Orinase and Phenolax.

The paper then considers the emergence of consumer advertising and reports how a firm strongly oriented to ethical drug promotion discovers the importance of the consumer in a changing marketing complex. A considerable loss in market share by a leading product, Unicap, is documented, and the resultant exploratory test marketing and eventual national consumer advertising efforts are reported.

The paper concludes with a brief statement of The Upjohn Company's present position and a few thoughts on its future. This final chapter summarizes the paper's observation of the problems, opportunities, and successes of the drug firm that grew from a two-man company in 1886 to

a 7,517-man corporate complex in 1963 and from gross sales of $50,000 in 1886 to nearly $192,000,000 in 1963.

As the paper presents no major problems per se, it solves none. Its purpose, simply stated, is to bring the advertising and marketing of The Upjohn Company into reasonably sharp focus for the interested reader.

UPJOHN ADVERTISING: THEN AND NOW

A Combined Case History and Case Study of the
Advertising of The Upjohn Company
of Kalamazoo, Michigan

By

Robert Warren Royle

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PART I

THEN

CHAPTER I

BIRTH AND BEGINNINGS, 1886-1906

"Medicine--designed for health, produced with care. Fine pharmaceuticals since 1886." These words represent The Upjohn Company, one of the largest drug manufacturers in the world.

Yet there was not always such a thing as a "drug manufacturer." At one time doctors and pharmacists were their own drug suppliers. Each supplied whatever drugs or medical compounds were required for his own practice. The drug industry really began when certain of these doctors and pharmacists established themselves as suppliers to others as well as themselves.

Some of these new manufacturers produced their products for, and distributed them directly to, the consumer himself. These manufacturers grew into the giant proprietary drug houses of today.

Most of the drugs produced by these manufacturers were originally known as "patent" medicines. They were so called because kings, centuries ago, granted exclusive permission for patents to manufacturers of secret medicinal compounds. As late as the end of the nineteenth century U. S. Patents could be granted to drug manufacturers without requiring disclosure of the ingredients or the techniques necessary to produce the drug.

Leonard Engel in Medicine Makers of Kalamazoo quotes Stewart H. Hollbrook as referring to this as the "Golden Age of Quackery." Products like "Donald McKay's Indian Worm Eradicator" and "Autumn Leaf Extract for Females" found widespread distribution and acceptance. In

addition, "Syrups containing morphine were sold as tuberculosis cures; alcohol was used so liberally in numerous nostrums that more alcohol was sold (according to one disgusted physician) as a medicine than as a beverage."[1]

Other new manufacturers concerned themselves only with the production and distribution of pharmaceuticals to be used under the direction of medically trained professionals. These people supplied the products that were to become prescription drugs.

Pharmaceuticals produced by these manufacturers were, however, little more effective than the patent medicines. Although the emerging ethical drug companies manufactured their products in line with specifications offered by the United States Pharmacopoeia, methods of control were so primitive that little could be found in the way of uniformity and predictability among drugs then on the market.

Pills produced by these manufacturers, for example, were so hard that they often passed right through the patient's system without even beginning to dissolve. And it was this problem which was attacked and finally solved by a thirty-one year old physician from Hastings, Michigan, in 1884. His name was Dr. William Erastus Upjohn.

Dr. Upjohn was the son of Uriah Upjohn, who was also a physician. Uriah Upjohn had come to the United States at the age of twenty-four, obtained a medical degree, and begun his practice in Richland, Michigan, in 1835. Of his twelve children, his oldest daughter Helen and three of the four boys, Henry U., William E., and James T., became

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[1]Leonard Engel, Medicine Makers of Kalamazoo (New York: McGraw-Hill Book Company, 1961), p. 23.

doctors. All received their degrees, as would generations of Upjohns to come, from the medical school of the University of Michigan in Ann Arbor.

The Upjohn children had spent most of their life on a farm. The resulting familiarity with, and interest in, farm machinery prompted Dr. W. E. Upjohn to experiment with machinery in his spare time. It was this experimentation that resulted in a machine which opened the way to a revolutionary new method of pill manufacture.

Dr. W. E.'s machine was essentially a revolving pan. A "seed" was alternately sprayed with powdered chemical ingredients and moistening agents until the pill had been fully formed. In this way the required amount of each ingredient could be carefully controlled. Further, and more important, these pills were certain to dissolve in the system and thus reach the blood stream. They could, in fact, be easily crushed with the thumb.

Although the patent on this process (No. 312,041) was not granted until January 10, 1885, Dr. W. E. began producing his "friable pills" (capable of being easily reduced to powder) in his attic in 1883. The market for his pills was good and sales rose. Soon Dr. W. E. found it necessary to move his "factory" to an abandoned feed mill in Hastings. But the business outgrew even this location and the Doctor again was forced to move.

This time the move was to Kalamazoo and into a partnership with his brother, Dr. Henry Upjohn. Shortly thereafter Dr. W. E.'s other two brothers, Frederick Upjohn and Dr. James Upjohn, entered the newly formed Upjohn Pill and Granule Company.

Though the Company really began its operation late in 1885 in a basement in Kalamazoo, its first price list was not printed until early in 1886. Thus the slogan, "Fine Pharmaceuticals Since 1886." This price list, the Company's first communication with its public, offered 186 different pill formulas compounded from 56 assorted drugs.

Thus The Upjohn Company began its adventure in production and marketing by offering two valuable commodities to its customers. One was, of course, the friability of Upjohn pills due to the new method of manufacture. The other was quality. In a market hard hit by intense price competition, The Upjohn Company early established a reputation for quality. In fact, throughout the plant then and in years to come could be seen signs reminding employees to "Keep the quality up . . . W. E. Upjohn."

To demonstrate the friability of its product, The Upjohn Company adopted as its trademark a picture of Dr. W. E.'s thumb crushing a pill. As Leonard Engel suggests, "It gave Dr. W. E. the most widely reproduced thumb in history. In one form or another, the thumb trademark . . . appeared in thousands of advertisements and on tens of millions of package labels."[2]

The Company's gross sales in its first year of operation were $50,000. It is interesting to note that Dr. W. E. Upjohn, as head of the firm, enjoyed a salary of $1200 a year and his brothers Frederick and James received $900 and $600 respectively.

Unfortunately, in January of 1887 the Company suffered the loss of Dr. Henry Upjohn to typhoid fever. The subsequent reorganization

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[2] Ibid., p. 27.

brought John M. Gilmore (the uncle of the man who was to become president, then board chairman, of the Company) and three others in as partners.

Later in the same year the Company was incorporated with capital stock of $60,000. Its officers included Dr. W. E. as president, Dr. James as vice-president, Frederick as secretary, and John Gilmore as treasurer. The market expanded, physical facilities grew, and in 1890 Upjohn gross sales reached a peak of $132,500.

However, the following year (1891) compressed tablets (simply powdered drugs compressed in molds of any shape) hit the pharmaceutical market and The Upjohn Company found itself without a "unique selling proposition."

To meet the competition, The Upjohn Company made two very important moves. First it expanded its product line to include "buyer's label" goods, special order goods (in bulk quantities), preparations for hypodermic injections, fluidextracts (concentrated plant extracts), tinctures (diluted fluidextracts), elixirs (spiced and/or sweetened fluidextracts and tinctures), syrups, ointments, and even medicated wines. By 1900 the catalogue listed more than 700 different items. In 1902 the Company officially acknowledged its broader approach to the pharmaceutical market by changing its name from the Upjohn Pill and Granule Company to simply The Upjohn Company.

The second move was the Company's recognition of the importance of advertising. General advertising describing the "Friable Quinine Pills" had been done in the medical journals of the day, chiefly the Journal of the American Medical Association (JAMA). But Upjohn ad-

vertising first began to assert itself during the late 1890's and early 1900's.

The Company's entire advertising program during this period was, for all practical purposes, directed and operated by an imaginative and creative member of the sales department, Mr. Frederick L. Childs. Mr. Childs seemed to have a gift for creating variations of standard formulas and giving them eye-catching names. It was he who designated Caripeptic Liquid (a mixture of malt enzymes and papaya enzymes designed to aid digestion) "The Vegetable Digestant."

This vegetable digestant proved to be one of the Company's best offerings to the market. Nearly twenty years later the Company's first director of research, Dr. Frederick W. Heyl, found that Caripeptic Liquid really had little effect in protein digestion. Nonetheless, its sales continued to run into tens of thousands of dollars annually.

During its period of inception, from 1900 to 1905, Upjohn advertising under Mr. Child's direction consisted largely of sampling advertising. By the use of this technique, certain Upjohn products (Caripeptic Liquid being prominent among them) with a value estimated at $5.00 were offered to doctors and pharmacists for $1.00. The vehicles for these ads were quarter pages in the JAMA showing the product or products and using the headline "$5.00 for $1.00."

This technique was an excellent means of distributing samples with the potential customer absorbing part of the cost. The campaign proved itself an immediate success. Dr. L. N. Upjohn, looking back on the campaign some fifty years later, noted that it was so success-

ful that mail had to be brought from the post office in bushel baskets. And in each envelope was a dollar bill.[3]

In 1905, however, something happened which was to have a serious effect upon Upjohn advertising. At that time the Council on Pharmacy and Chemistry was created by the American Medical Association to regulate advertising in the JAMA and generally act as an authority on drugs. The creation of the Council was an apparent attempt to clear the market of the innumerable drugs and drug mixtures which had little or no value in the treatment of disease.

Unfortunately, the Council's regulations affected a number of ethical drug firms as well as the manufacturers of patent medicines. The Upjohn Company was among these firms, for the sampling technique which the Company had been using since the turn of the century was prohibited by the Council. As the JAMA was the only medical journal of any consequence at that time, its removal from the Company's media schedule actually brought all Upjohn professional advertising to a halt.

A year later in 1906 Congress passed the Pure Food and Drug Act, which also affected the pharmaceutical industry. As far as advertising was concerned, however, the congressional ruling was merely a codified complement to the regulations already established by the Council.

It is interesting to note that regulations of a similar, yet different nature would arise more than a half-century later to create an even greater complex of problems for The Upjohn Company and its advertising.

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[3]Dr. L. N. Upjohn, interoffice memo dated July 7, 1945.

CHAPTER II

THE PHENOLAX ERA, 1907

The Upjohn Company's first real triumph in pharmaceutical marketing occurred in 1908. It began with the manufacture and promotion of a small mint-flavored laxative wafer. This was the product that was truly to establish The Upjohn Company as a major force in the rapidly growing drug industry. The product was Phenolax.

Frederick Childs, the designer of Caripeptic Liquid, discovered that a small midwestern drug firm was producing a tasteless laxative which he thought might have possibilities for The Upjohn Company. Analysis revealed that the laxative's active ingredient was phenolphthalein, until then used solely as an acid-base indicator (turning red in an acid solution and colorless in an alkaline solution).

This laxative was also being marketed in Germany, which was the world's primary, and almost sole, producer of phenolphthalein. However, it had met with no real success either in Germany or in this country.

The Upjohn Company decided to combine this laxative with one already in the product line to form a "superlaxative" with "built-in multiple action." Samples were prepared, and the new product was dubbed "Phenolax."

The new product was presented to Dr. W. E. Upjohn. He liked the name Phenolax immediately. He did not, however, see the marketing advantage of a mere compound laxative pill. He suggested rather a flavored wafer, which would provide a unique, pleasant-tasting laxative.

Working from this, the Company's research production and sales departments combined to place on the market a product that became known

in virtually every household in the nation. It was the pink, rectangular, mint-flavored laxative wafer Phenolax.

Initially the Company marketed the product only to physicians. The physicians saw the product, liked it, ordered, then reordered, then reordered again. Realizing the possibilities for Phenolax, the Company began a national introduction.

A novel advertising device, which has since become commonplace in pharmaceutical promotion, was employed. The Company sent a postcard containing an advertising message and ten Phenolax wafers (under a strip of parchment) to every physician in the United States. If the physician would try these samples himself, it was assumed that the mint flavoring would do the rest. It did.

As well as trying the wafers themselves, doctors gave the samples to their patients with the suggestion to pick up some Phenolax at the drugstore. The public developed an immediate liking for Phenolax and orders poured in. In fact, sales results were almost too good. The production department soon found itself hard pressed to keep pace with the influx of orders.

But the Company, as in other past and future situations, proved flexible enough to adjust to the problems and opportunities brought by booming sales. Production caught up and, in spite of entering competition, The Upjohn Company continued to lead the rapidly growing market for flavored laxatives.

The drug industry and the public were happy and things were going well for all when the world found itself unwillingly plunged into World War I. The war's effect was immediately felt by the laxative

manufacturers, for it was the German chemical industry which supplied the world with the phenolphthalein so vital to the manufacture of Phenolax and competitive products.

Older drug firms which were not so dependent upon a single product apparently failed to sense this complication introduced by the war. But the farsighted management of the young Upjohn Company proved itself, for it had purchased large stocks of phenolphthalein in anticipation of the war shortage. The result was that The Upjohn Company became, for all practical purposes, the nation's sole producer of flavored phenolphthalein-based laxatives.

Phenolax controlled a market all its own until the early 1920's. When the war ended and phenolphthalein again became available from the German chemical industry, a flood of competition struck the market. Upjohn management, recognizing the danger to Phenolax, moved to stop or slow the competition and retain its product's share of the market.

To accomplish its objectives, management called upon advertising. Upjohn needed to establish a secondary, rather than only a primary, demand for its product. Product differentiation and identification became not only desirable, but necessary, to the survival of Phenolax.

A number of devices were employed to establish identification. The first move was imprinting the word Phenolax on every wafer. Further, red and yellow celluloid window cards were printed and distributed to druggists. They were 12 x 18 inches in size and read, "No Substitution in This Store--We Sell the Genuine Phenolax Wafers--In Original Bottles of 30." Service contracts were also designed to allow various amounts of "free goods" to druggists upon their purchase

of Phenolax in gross lots and their agreement to display the product prominently.

The new policy encompassed Upjohn's first serious effort to advertise directly to the public. The Company employed lay advertising because the job simply could not be done by its sales force, at least not fast enough in a market suddenly flooded with competition. In spite of the success of consumer advertising, however, Upjohn did not use this form again to any appreciable extent until half a century later.

Possibly the most powerful device used in the Phenolax campaign was a point-of-purchase display conceived by L. M. Crockett, later to become a vice-president and director of the Company, and executed by William Donahey, creator of the weekly comic strip "The Teeny Weenies" (which still appears in some larger Sunday newspapers). Donahey prepared a three-paneled display showing the elf-men constructing a house of Phenolax wafers. The display was an immediate success and was much sought after by the larger drugstores and chains throughout the nation.

The display was so effective that Phenolax became a household word. According to Leonard Engel, "Doctors' sons dubbed their jalopies 'Phenolax' instead of 'Leaping Lena.' An Upjohn salesman spotted a thoroughbred trotter named Phenolax (but never reported how well the horse made out)."[4]

No matter how the horse did, the product did very well. During the period from 1908 to 1925 Phenolax was the bread and butter of The Upjohn Company. It contributed as much as twenty-five per cent to the

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[4]Engel, p. 44.

Company's total sales. The peak year for Phenolax was 1924, when 182,393,660 wafers were manufactured for total wholesale sales of $795,252.

In 1925 Phenolax sales began sliding. They continued to slide until the product was finally all but abandoned by the Company. As late as 1949, however, Phenolax sales were still well over $100,000 per year.

Among the least concerned over this loss was Dr. W. E. Upjohn. His philosophy was that there is a vogue in drugs just as there is in women's fashions. He felt that "a product, a procedure, even a man, may be good, but it (or he) must never be considered indispensable."[5]

Dr. W. E.'s son Harold, who had been instrumental in the success of the most popular pharmaceutical product of its day, formally concluded the Phenolax success story when he returned from a trip to his father's winter home in Pasadena, California, in the mid-1920's. An Upjohn official reports that Harold summed up the Phenolax situation as follows: 'Well, boys, the Phenolax problem is solved. The answer is, no more oxygen treatment, no more advertising, no more displays, service contracts, deals, free goods, or price cuts. Just forget Phenolax."[6]

And so the Phenolax era came to an end. It covered what was probably the most important part of the Company's history. Profits from what Leonard Engel calls "Dr. W. E.'s 'Big Thing'"[7] allowed for

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[5]Stanley Morris, "Upjohn Advertising and Sales Promotion Since Five-Ten-Twenty," The Upjohn Company History, V (no date), 144. (Typewritten.)

[6]Ibid.

[7]Engel, p. 40.

the building of an extensive research department and great expansion of the selling force.

If any product from the thousands made by Upjohn then and now could be singled out as providing for the Company's greatest growth, it would have to be the pivotal product which was the turning point in Upjohn history, Phenolax.

CHAPTER III

THE EXPANSION ERA, 1908-1938

From 1905 to 1938 The Upjohn Company carried on its marketing program without the support of professional journal advertising.

The AMA followed its ruling against sample advertising (which had been the mainstay of Upjohn advertising for several years) with a number of articles in the JAMA criticizing various Upjohn products. Apparently the AMA felt such measures could coerce drug firms like The Upjohn Company to return to the pages of the JAMA with full obedience to the new standards set by the Council. The articles appeared at intervals over a number of years.

One by L. E. Warren, published in the JAMA of April 17, 1915, publicly criticized Blaud Pills (used as an iron tonic), whose major manufacturer was The Upjohn Company. Another article published nearly 20 years later in the May 20, 1933, issue of the Journal criticized Citrocarbonate, Vitamin D, and a number of other Upjohn specialties.

The Company apparently had not realized that it was able to advertise at all under the new regulations and had terminated its journal advertising. Furthermore, the above mentioned articles did little to stimulate The Upjohn Company to investigate the matter. The questionable tactics of the powerful AMA and the stubbornness of the young drug firm combined to create an enmity that kept Upjohn advertising from the pages of the JAMA until late in the 1930's.

There is little doubt that this lack of journal advertising did a good deal of harm to The Upjohn Company's marketing effort. However, during this period the Company entered two areas which were to very

greatly affect its later powerful market position. One of these areas was sales promotion. During this period the right men, the right products, and the right markets combined to create and develop a program of sales promotion and detailing support that is perhaps the strongest in the industry today and is still growing.

One of the most important figures in the growth of Upjohn advertising during this period was Mr. W. Harold Upjohn. Mr. Upjohn, the son of Dr. W. E. Upjohn, entered the organization in 1907. He felt strongly that advertising could be attractive as well as dignified and ethical. One of his first projects was redesigning the Caripeptic Liquid label. His action brought criticism from some members of the Company who felt that Upjohn had fallen from, and could never return to, its former position of severe dignity in packaging. Caripeptic Liquid's packaging may have lost dignity, but the product's sales began to mushroom. Compliments poured in from salesmen who commended the new design and hailed it as a boon to selling efforts.

Harold Upjohn successfully continued his advertising work by creating an extensive direct mailing program. Promotional literature --leaflets, blotters, calendars, etc.--was sent to physician-customers twice a week. One popular direct mailing piece titled "The Doctor's Prayer" appeared in 1908. Mr. Will Brownell, a retired grocer turned free lance copywriter was selected by Mr. George McClelland of Upjohn to write the words. The text was as follows:

> Inasmuch as we have, to the best of our ability, relieved the physical discomfort of those who have called upon us when in trouble, may they whom we have ministered unto have a deep-seated, organic and absolutely incurable conviction that doctors, at the worst are simply human. May they realize that

> the disease known as "Financial Cramps" is no respector of persons; that frequent applications of kind words and good wishes, while pleasant to take, do not in any way relieve the griping sensations of a run-down monetary system, and that while all flesh is grass, it takes real Uncle Sam money to buy hay* and prunes. May they to whose bedsides we have always promptly hastened when duty summoned, be suddenly and severely attacked with a softening of the heart and a loosing of the purse-strings to the end that we, their doctor, may be able to hold up our head in the presence of our creditors, and to this end we most devoutly petition.
>
> *Here may be inserted the words "or gasoline." [8]

The piece was very successful and gained wide acceptance among Upjohn's customers for many years. It was reprinted again and again in the form of small detail pieces, desk blotters, etc.

Of course Upjohn advertising had to have something to sell, and here the success of Phenolax was again significant. With funds furnished by Phenolax, the Company established a research department. It's first chief was Dr. Frederick William Heyl, who came to Kalamazoo from the University of Wyoming where he had served as professor of chemistry. Heyl first set up a small control laboratory from which to operate. At the time Dr. W. E. Upjohn remarked, "This is going to cost me $50,000, and I don't know where the money is coming from." Time would prove that the research department would more than compensate for its initial cost and for the millions of dollars spent building research into the backbone of the Company.

Dr. Heyl and his small staff began their work with the problem of digitalis--a drug made from the powdered leaf of Digitalis purpurea or common foxglove. Digitalis is used as a heart tonic. It increases blood pressure by virtue of a regulatory effect on cardiac muscle. It

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[8]Engel, p. 51.

is invaluable in the treatment of heart disease. Unfortunately, the clinical usefulness of digitalis involved two problems: (1) the therapeutic dose was nearly equal to the toxic dose and (2) the drug lost about sixty per cent of its power in a year's time.

After extensive investigation and research Dr. Heyl solved both problems. Careful control and standardization solved the toxicity problem. The discovery of the effects of light and moisture on stability was the key to the second problem. Dr. Heyl developed a sealed, darkened package containing a desiccator to remove moisture. Later advances led to the production of Digitora, an oral digitalis tablet which met with considerable success.

About the time Upjohn sales promotion introduced Digitora to the market, physicians were developing an increasing awareness of the important fact that human blood was alkaline in nature. Researchers had found that many diseases upset the acid-alkaline balance in the bloodstream, which produced further complications.

Sodium carbonate provided the solution because it returned blood to its alkaline state. However, large doses of sodium carbonate were difficult to take. Dr. L. N. Upjohn attempted to improve the taste of sodium carbonate by mixing Vichy salts (chiefly magnesium citrate) with it. The Vichy salts helped, but did not improve the product enough to suit Dr. W. E. Upjohn. In accordance with his policy during the developmental stages of Phenolax, Dr. W. E. insisted on a better-tasting, more effective drug.

Dr. Heyl set to work on the problem. In 1921 Upjohn introduced Citrocarbonate, an effervescent mixture of alkalizing salts, citrates,

and bicarbonates. Two years later the product's sales of $420,000 accounted for about one-eighth of the Company's business. This product backed by extensive research, good production methods, careful quality control and aggressive promotion changed The Upjohn Company's uncertain sales future to a bright, promising one.

It was also in 1921 that Mr. Harry H. Freeman joined The Upjohn Company. Mr. Freeman had come to Kalamazoo in 1918 at the request of Dr. W. E. Upjohn to help create a new city charter. Kalamazoo accepted Mr. Freeman's proposed charter and he became the new city manager. At the same time Dr. W. E. Upjohn was elected mayor.

Thus it was hardly strange that, when Mr. Freeman resigned his position late in 1921, he came to The Upjohn Company. One of his first assignments was a trip to London with Harold Upjohn in the fall of 1922. The Company was attempting to introduce Phenolax to Europe, but Freeman's mission was not successful. He returned in the late spring of 1923, having failed to establish Phenolax in the European market.

He returned to the dual position of editing the Company's house organ, The Overflow, and doing special work in sales promotion. He made a study of mailings to physicians and from this determined the policy that was to guide all future Company promotion and advertising.

Freeman defined sales promotion as a supportive rather than supplantive effort. All promotion was tied closely to the detailing programs of the salesmen. He attended sales conferences, where he acquainted the field men with the help being given them by the expanding sales promotion department. He further communicated his plans through The Overflow, announcing campaigns, running sales contests, etc.

This was the kind of promotional support that, with no journal advertising whatever, was creating a legend of Phenolax and rapidly building sales of the new "big" product, Citrocarbonate.

Citrocarbonate was, in fact, finding broader and larger markets than had been imagined for it. It was used in the treatment of diseases marked by an acid-alkaline imbalance in the blood. It was used as an antacid for gastric upset. Surgeons prescribed it for treatment prior to operations. They were sold by the excellence of the product itself and by its supportive advertising: "Preoperative alkalinization for postoperative comfort." The product even enjoyed some popularity as a preventive of the common cold.

In 1925 Citrocarbonate sales outstripped those of Phenolax. One year later it became the first Upjohn product to attain gross sales of more than one million dollars. Its peak year was 1931, when sales of $2,081,000 constituted 25.4% of company sales. Citrocarbonate continued to report annual sales of over a million dollars as late as 1945. In fact, the product is still a very active member of the Upjohn line, with a sales volume of $917,000 in 1962.

By the mid-1920's the family partnership that had started in a Kalamazoo basement, aided by the almost storybook successes of products like Phenolax, Digitora, and Citrocarbonate, had grown to a firm employing eight hundred employees and grossing four million dollars a year. In addition to the three "bread and butter" products the catalogue listed a line of injectable drugs, a complete line of vaccines, and a cough medicine which, like Phenolax, was to become a household word. The cough medicine was Cheracol.

Cheracol was originally compounded with morphine. To the Company's chagrin, however, it became popular with narcotic addicts (particularly on the West Coast). The Upjohn Company hastily substituted codeine, a nonhabit-forming narcotic, for the morphine. The codeine was every bit as effective as the morphine, and thus again a good product with a pleasant taste found its way into the homes of America. Once more The Upjohn Company had employed what was later to be called the "marketing concept" to produce, create, promote, and distribute a product whose first concern from conception to consumption was the ultimate consumer.

On March 1, 1926, Harry Freeman left the Company. Fortunately this man who had really made Upjohn promotional policy was replaced by a man equally capable, Mr. Stanley Morris. Morris had been with The Upjohn Company since 1920 supervising the production and distribution of detail materials. It was he who made the direct mailing program so effective by scheduling the two mailings each month to coincide with the product(s) being detailed by Company salesmen. This was a difficult and extensive job, but Mr. Morris handled it with efficiency and dispatch. (Practically all direct mailing by the Company today is done internally by the Promotional Mailing department under the supervision of Mr. Jack VanDyke.)

Unfortunately, just as The Upjohn Company seemed to have found the secret of successful sales promotion without journal advertising, it experienced a serious setback. On October 15, 1928, Harold Upjohn, who had been the power and creative inspiration behind all Upjohn advertising since 1907, died. With him died nearly all Company adver-

tising, for the advertising program that he had made so successful lay dormant for an entire decade.

At the time of Harold Upjohn's death Citrocarbonate was a well-established pharmaceutical. It had been advertised and promoted well enough that it could provide the Company with sufficient sales without the aid of continued advertising. In fact, the entire sales organization, then under the direction of Mr. Malcolm Galbraith, was growing so quickly in size and efficiency that some questioned the need to advertise any of the Upjohn line.

This question had come up before, but Harold Upjohn had always been able to sell top management on the need to advertise. Harold was the only member of the management team who did not have a medical background. He, probably better than the others, could see outside the research and production departments to the most important part of the business mix, the market. He knew the necessity of finding a need, filling it, and then telling your customers, through advertising, that you had filled it. But when Harold died, his view of the market also died, and Upjohn management discontinued the advertising program.

In all fairness to management, it must be admitted that one of the major reasons for the neglect of advertising was the fact that a more important need had arisen. The Company needed a vitamin product to compete with discoveries being made almost daily in the field of nutrition. Consequently, money was taken from advertising to pay for a nutritional laboratory.

However, the Company never returned the money to the advertising budget after building the nutrition laboratory because one year after Harold Upjohn's death the American stock market crashed. The country entered the greatest economic crisis it had ever known--the great depression. Pharmaceutical firms had to consider first things first, and research was most vital. Thus every available dollar of profit was spent on research.

Throughout this period The Upjohn Company and the entire pharmaceutical and medical professions had been vigorously pursuing the secrets of nutrition. First came vitamin A, isolated near the end of the 1910's through the efforts of a great many men of science, the first of these being Sir John Bland-Sutton, who discovered the use of cod liver oil in the treatment of rickets in 1889. The discovery of vitamin A led in 1922 to the discovery of vitamin D, which was also found in cod liver oil.

Vitamins were indeed becoming important to the pharmaceutical market. The Upjohn Company was able to take advantage of this market because of the work of Edwin C. Wise, chief of the newly formed nutrition laboratory. In 1928 the Company entered the vitamin field with a product that, unlike its competitors, boasted controlled potency and taste. The product was Super D cod liver oil, and it enjoyed considerable popularity as a food supplement for babies and children.

In keeping with business tradition, competition found something better. By irradiating ergosterol, a fatlike plant substance, with ultra-violet light, scientists could form an almost pure concentrate of vitamin D. The Upjohn Company failed to obtain a license to produce

Vitamin D in this manner; but, undaunted, it searched for other ways to meet the competition. In 1936 Edwin Wise went to Europe, where he traveled extensively in Scandanavia for more than half a year. He set out to find the best source of cod liver oil available. He found it off the northern coast of Iceland.

The revelation of this extremely potent oil was coupled with the discovery of ethylene chloride, an organic chemical capable of dissolving vitamin D and thus isolating it from cod liver oil. The firm which made the discovery, International Vitamin Corporation, granted an exclusive U. S. license to the process to The Upjohn Company. Super D concentrate was therapeutically superior to the ergosterol irradiated vitamin D, and The Upjohn Company again led the drug industry.

Drug researchers were working not only with vitamins A and D. In 1926 Dr. Joseph Goldberger of the Public Health Service discovered niacin (nicotinic acid). Vitamin C (ascorbic acid) was finally isolated in 1928. In 1931 Dr. Harry C. Sherman of Columbia University isolated vitamin B_2 (riboflavin). In 1935 Dr. Robert R. Williams of Bell Telephone Laboratories isolated vitamin B_1 (thiamine).

Working to combine all these into a single vitamin product, The Upjohn Company introduced its first multivitamin in 1930. Myeladol was a combination of iron, bone marrow, malt, and cod liver oil. It provided clinical efficacy but was somewhat less than a smashing sales success. Continued research produced Cerelexin in 1937. Cerelexin combined liver extract, iron, and an excellent source of B-complex vitamins, yeast extract. Cerelexin proved to be a popular and rather successful contribution to the multivitamin market.

In 1938, the year The Upjohn Company returned to the pages of the JAMA, Teleostol Compound C was introduced. This multivitamin was a combination of crystalline thiamine chloride, ascorbic acid, and concentrates of vitamins A and D. Like Myeladol, Teleostol Compound C failed to provide the hoped-for sales. But the best was yet to come.

The Upjohn Company was losing the race for the greatly increasing vitamin market, so the research department went back to work. They came up with a small capsule containing the adult minimum daily requirements of vitamins A and D, B_1 (thiamine), B_2 (riboflavin), C (ascorbic acid), pyridoxine, and niacinamide. This time a product "designed for health, produced with care," and prepared for an already established market was supported by the power created by a reawakened interest in sales promotion and advertising.

In 1940 Unicaps exploded into the American drug market!

CHAPTER IV

CONSOLIDATION AND MARKETING GROWTH, 1938-PRESENT

The year 1938 marked the end of The Upjohn Company's long absence from the pages of the professional journals. It was, in fact, the end of a decade of almost complete lack of any form of advertising.

On June 2, 1938, the Company submitted a list of twenty-five products to the Council on Pharmacy and Chemistry of the AMA for consideration. It was accepted. A letter from Dr. Leech, then Secretary of the Council, dated July 29, 1938, stated that "The Upjohn Company will be considered a concern having accepted products as of September 1 . . . . The Secretary wishes to express on behalf of the Council, appreciation of your willingness to cooperate."[9]

It is interesting to contrast this with a statement from another letter written five years earlier by Dr. Leech: "The Upjohn Company has never cooperated with the Council on Pharmacy and Chemistry. At times the firm has indicated its intention of submitting products to the Council, but no product has ever been accepted for inclusion in New and Non-official Remedies."[10] Although this letter was written to a physician, it is easy to see the change in attitude, both of the Council and the Company.

AMA acceptance was, of course, a major factor in the re-emergence of Upjohn advertising. However, as at other points in The Upjohn Company's history, a man also played a key role in the Company's progress.

Mr. C. V. (Pat) Patterson began his career with The Upjohn Company in 1925 as a salesman in Kansas City. In 1928 he became a sales

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[9] Morris, op. cit.

[10] Ibid.

supervisor. In 1931 he was elevated to the position of Secretary to the Director of Sales, Mr. Malcolm Galbraith. This led to a promotion to Assistant Director of Sales and shortly thereafter to Sales Director of the Company. Mr. Patterson concluded his active career with The Upjohn Company on January 4, 1960. He retired from the position of Executive Vice-President, but he continues to serve as a consultant and remains a member of the Board of Directors.

Mr. Patterson was keenly interested in the role played by advertising in Upjohn's sales, and he was instrumental in alerting management to the growing importance of advertising and sales promotion. At his insistence the Company again undertook a fairly ambitious program of direct mailing in 1938 and 1939.

At this time the Company entered into its first agency relationship. It hired McManus, John and Adams (presently agency of record for both the Pontiac and Cadillac divisions of General Motors) to work on the creation and production of Company advertising which appeared in the JAMA in 1939.

McManus also engineered the Company's direct mailings. These mailings were done entirely independently of the detail work (i.e., the personal selling effort). A comprehensive study was made of this effort which proved that direct mail is considerably more effective when used to support detail work, rather than supplant it.

Applying this principle and others slowly gained from experience, the Company proceeded with its advertising program. In 1940, apparently in favor of retaining an agency, but disenchanted with McManus, The

Upjohn Company switched the handling of its account to the L. G. Maison agency of Chicago. Dr. Maison himself acted as account executive.

In this year (1940) twelve separate mailings were made and a series of twelve 4-color inserts was run in the pages of the JAMA. Copies of these twelve ads, "Studies in Avitaminoses," were made available to physicians in portfolio form. Revisions of this portfolio resulted in the publication of two books, Clinical Aspects of Avitaminoses, published in 1943, and Vitamins in Medicine, published in 1947. Both were made available free to doctors. (An even later publication, The Vitamin Manual, published in 1953 and distributed at no charge to professional people, teachers, etc., was written from material in these two books.)

In 1941 The Upjohn Company, still experimenting with the powerful new tool of advertising, changed agencies again. The new agency was Campbell-Ewald of Detroit, among whose clients presently is Chevrolet Division of General Motors, one of the largest single advertisers in the world. Mr. Karl Pittelkow acted as account executive.

Ten direct mailings were made in 1941 and a journal schedule similar to that of the previous year was maintained. In addition, two new features became a part of the advertising program.

The first was a series of institutional advertisements run in national magazines. These ads discussed the theme "Why Your Doctor Knows." The series constituted one ad each month from September, 1941, through May, 1942, in Saturday Evening Post, Time, Parents, and Hygeia. Like the "Avitaminoses" ads, these nine ads were later reprinted in book form and distributed by salesmen to physicians. The suggestion

was made to make the books available to patients by placing them in physicians' waiting rooms.

The second new feature of Upjohn advertising was Scope, introduced in October, 1941. This prestige periodical was intended as a quarterly journal, but in reality it was rarely published that often. Scope contained news and feature articles of interest to the physician, as well as advertising. It was distributed free to doctors. Unfortunately, due to its high production cost and erratic publication schedule, Scope was discontinued with the December, 1957, issue.

Scope's successor had been born two years earlier. On January 2, 1956, the Company published the first issue of Scope Weekly. This tabloid newspaper featured brief articles on current news stories concerning the medical and pharmaceutical professions. Gone were the prestige, "class" feature stories of the coated stock journal.

Like the magazine, Scope Weekly was distributed free by mail to nearly all the approximately 175,000 physicians in the nation. Libraries of the country's leading medical schools also received it at no charge. William Douglas McAdams' agency of New York handled entirely the services of reporting, producing and distributing Scope Weekly at a cost of $1,500,000 a year.

An expenditure of this size, however, could not be made long no matter what the return (which Upjohn studies showed was far from great). Consequently, with the November 2, 1960, issue Scope Weekly died. With it died any attempt to distribute a house organ to doctors.

The McAdams agency (not to be confused with McManus, mentioned earlier) was hired in early 1943 to create and produce all Upjohn ad-

vertising except national lay advertising, which was left with Campbell-Ewald. Working with McAdams, The Upjohn Company increased its 1943 mailings to fourteen and expanded its journal advertising.

In December, 1943, the Company adopted the "Your Doctor Speaks" national lay campaign proposed by McAdams, which ended the association with Campbell-Ewald. "Your Doctor Speaks" dealt with diseases often encountered by physicians and told of the progress of medical science in the treatment of these diseases. Each ad was illustrated by a four-color fine art painting.

The Company employed the aforementioned four national magazines for the series for the next three or four years. Other magazines were occasionally included in the schedule, among them Life, Colliers, Newsweek, and Fortune.

In 1944 twenty-four mailings were made and journal advertising expanded further.

Twenty-nine mailings were made in 1945. In this year the first ten advertisements of the "Your Doctor Speaks" series were published in book form. Every physician in the United States received copies of the book for use in his waiting room.

During World War II The Upjohn Company included slogans like "Buy War Bonds" in its national magazine advertising. Ads like these were also occasionally placed in the Kalamazoo Gazette.

In 1946 a series of two-page ads called "Civilian Medicine During the War Years" was placed in the JAMA. McAdams prepared these ads, which discussed diseases and conditions for which progress in treatment

had been made during the war years. Some years later the theme of this series was changed to "Recent Advances in Medicine."

In 1946 forty-eight mailings were scheduled, probably the most ever attempted in a single year. Journal schedules remained about the same.

In 1948, 1949, and 1950 the Company cut its mailings almost to the point of discontinuation. Journal advertising remained steady. Institutional national advertising declined somewhat.

During this period of growth, from 1938 to the present, professional and direct mail advertising were not the only promotional weapons the Company employed in its assault on the drug market. Detail materials (printed materials used as props for sales presentations and/or as "leave-behinds"), window displays, and special promotional exhibits also figured prominently in The Upjohn Company's promotional armamentarium.

In 1920 the only advertising used was a group of detail materials. The area of detail materials has, of necessity, grown tremendously since that time. The flow of new products has required great amounts of detail materials to introduce these products to the doctor or druggist and to aid the salesman with his presentation.

Much of the Company's detail material comes from ideas submitted by salesmen. These ideas range from simple black-and-white charts to elaborate leather-bound booklets with celluloid envelopes containing photographs, charts, graphs, outlines, etc. Through the years detail pieces have become more elaborate and colorful. In 1948 mechanical gadgets were added to the Company's detail effort. Presently the Com-

pany is experimenting with slide projectors and motion picture projectors to be used in presentations made by detail men.

In 1940 the detail cards, blotters, folders, leaflets, and booklets were ordered in quantities of 50,000. By 1948 these items were ordered in quantities up to 200,000. This is still true in 1963.

Upjohn's first use of window displays has been mentioned in the Phenolax "success story" in Chapter II. Displays were used intermittently from then until the late 1930's. Beginning in 1938 the Company prepared vitamin displays annually for use in drugstore windows. These centered in a human interest painting and featured Upjohn vitamin products.

In 1939 the Company commissioned Normal Rockwell to do a group of paintings. Among them were a painting of a small boy measuring himself by marks on the wall and a country doctor writing a prescription for a mother and her three children. Reproductions of Rockwell's works may still be seen in doctors' offices across the nation.

Window displays also featured paintings from the "Your Doctor Speaks" series of national advertisements. Other special product displays were prepared as the need arose.

Advertising through medical exhibits began in 1892 with a small booth at the Chicago World's Fair. The booth, run by Dr. W. E. Upjohn himself, showed the advantages of the "friable pill." Stickpins (miniature bottles containing layers of vari-colored pills) were distributed to interested onlookers. The pins were attached to a card upon which was printed "Compliments of the Upjohn Pill and Granule Company."

Special exhibits appeared intermittently from that time until 1947, when major exhibits on Gelfoam, an absorbent and absorbable surgical gelatin sponge, were shown at medical conventions in Buffalo and Chicago. Registration cards written on the spot provided a natural follow-up for Upjohn salesmen.

Exhibiting increased in 1948 to cover eight national, eleven state or city, and three specialized medical conventions. Upjohn built exhibits which could be adapted from a Gelfoam presentation, for example, to one on the adrenal cortex products. Even veterinary medicine was represented: three exhibits in 1947 and four in 1948.

Certainly one of the Company's most ambitious exhibit efforts has been the construction and display of The Cell. This tremendously magnified model (twenty-four feet in diameter) of the most fundamental biological unit of life has been displayed at a number of conventions across the nation. It resides now in Chicago's Museum of Science and Industry.

The Cell contains over two-thirds of a mile of special acrylic plastic tubing in 2,200 separate pieces, which are glued and clamped together. One mile of electrical wiring provides lighting for the effect of life within The Cell.

The model has left the Museum only once. In 1959 at the urgent request of the British Broadcasting Company it was flown to England to be the star of two one-hour television programs on cancer and cancer research.

Actually The Upjohn Company has experienced what is probably its greatest growth period in the last ten years, for example:

	1952	1962
Gross Sales	$75,958,000	$173,181,000
Net Sales	8,405,000	23,255,000
Total Number of Employees	4,267	7,025 [11]

The Upjohn Company owned sixty-six buildings in 1950;[12] the current total is 149.

The estimated 250 professional journals used by Upjohn in 1950 has been trimmed to about twenty, but the number of advertising agencies employed has increased. Since 1950, when McAdams was the only Upjohn agency, five agencies have been added: Robert A. Becker, Inc., McCann-Marshalk (Division of Interpublic), Aves Advertising (to reach the agriculture and drug trade), Fitzsimmons, Inc., and L. G. Maison (the same agency which had been retained earlier in the Company's history).

Perhaps of greatest interest is the increase in advertising expenditure from $666,000 in 1950 to $5,198,000 in 1962. This represents a significant increase in advertising as a percentage of sales from 1.04% in 1952 to 3% in 1962.

These figures do not, however, belong to the history of Upjohn advertising, but to the present. They reflect the constant and continuing growth of a company that, through extensive research, efficient production, and aggressive marketing, has established itself as a world leader in the manufacture and distribution of pharmaceuticals.

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[11] The Upjohn Company, Annual Report, 1952 and 1962.

[12] Ibid., 1950.

PART II

NOW

CHAPTER V

GOVERNMENT REGULATION AND THE DRUG INDUSTRY

In 1957 a painful and torturous era began for the drug industry as major attacks against it were leveled from at least three directions. The question involved was one of drug regulation; and the drug firms, whose very reason for existence was the prevention and cure of disease and, therefore, the health of every man, woman, and child in the U. S., suddenly found themselves pictured to the public as villainous, profit hungry individuals, who were more concerned with selling ineffective or, worse, harmful medicines to the poor overworked physicians and an unsuspecting public. Taken unawares, the industry could only gape at the charges.

Here was an industry that had grown by leaps and bounds over the past thirty years. Most companies had begun, much as Upjohn had, as small firms handling the manufacturing of medicines as directed by the physicians. As Lawrence Lansing, writing for Fortune magazine, put it, "Formerly the pharmaceutical industry made only what the doctor prescribed; now the doctor prescribes what the industry makes. In the last 30 years or so, medicine has encompassed more advances than in the preceding five hundred."[13] Thus an industry responsible in part for making this country one of the least disease-ridden countries in the world was being attacked for allegedly taking advantage of an unsuspecting public in order to secure greater profits.

As the attacks took form, several basic reasons for them became clear:

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[13]Lawrence Lansing, "Laws Alone Can't Make Drugs Safe," Fortune (March, 1963), p. 3.

1. The Federal Trade Commission (FTC) charged six companies, Upjohn among them, with unfair methods of competition and unfair acts and practices. The charge made particular reference to the marketing of various forms of tetracycline, a broad-spectrum antibiotic.
2. The Food and Drug Administration (FDA) felt that it was not able to adequately control the marketing of new drugs being placed on the market.
3. The Kefauver Committee (full title: Senate Subcommittee on Antitrust and Monopoly /a part of the Senate Judiciary Committee/, whose chairman was the late Senator Estes Kefauver of Tennessee) aimed its attack at the excessive profits Mr. Kefauver was convinced the drug companies were making. The attack eventually broadened into questions of controlling not only those profits, but also advertising content and marketing methods as applied to products on the market.

As the industry reeled, searching for reasons for the attacks and for weapons to combat them, it became clear that a good deal of the blame for the assaults lay with the industry itself. Its notable lack of institutional and corporate advertising and of public relations and lobbying, activities so vital to big business, had left it vulnerable.

Senator Roman L. Hruska, then himself a member of the Kefauver Committee, explained it rather clearly when he said, "The prescription makers had in the mind of the public no reservoir of good will, no general awareness of their phenomenal service to mankind. Their story

had never been told. In the popular jargon they had no 'image.' To the inquisitors, they were not just fair game; they were sitting ducks. So they were duly nominated for assault."[14]

To compound the problem of the Pharmaceutical Manufacturers Association (PMA), which represented the industry, all three federal attacks came within the same space of time, roughly the two years 1960 and 1961.

Though the three manifested some interplay, one affecting the other, this report will consider them separately for purposes of reader clarity and convenience.

The Federal Trade Commission. In a speech before the Proprietary Association convention at White Sulfur Springs, West Virginia, in May, 1961, Federal Trade Commission Chairman, Paul Rand Dixon, cited a report that revealed an unfavorable trend with respect to pharmaceutical advertising.

> It appears that ten years ago the Commission was issuing only about five complaints a year against proprietary drug advertising but that the number of these complaints has increased to the point where 19 were issued in 1960 . . . . All five members of FTC are deeply troubled by the content and tone of the thousands of letters complaining about advertising that we receive each year from the public. Many of these are forwarded by senators and congressmen who add their own expressions of concern. [15]

Thus on July 13, 1961, the FTC put forth a "Resolution Directing Investigation of . . . Corporations Engaged in the Sale and Distribution of Drugs and Drug Products":

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[14]Senator Roman L. Hruska. Address before the New Jersey Pharmaceutical Companies, Far Hills Inn, Sommerville, New Jersey, November 16,1961.

[15]Paul Rand Dixon. Speech before the Proprietary Association Convention, White Sulfur Springs, W. Va., May 14-17, 1961.

> Now, Therefore, Be It Resolved that the commission in the exercise of the powers vested in it by law, and pursuant to its published procedures and rules of practice (16 CFR, 1958 Supp., 1.1 et seq.), and with the aid of any and all compulsory processes available to it, do forthwith proceed to investigate, for the reasons and purposes stated herein, the organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals of corporations engaged in the manufacture, distribution and sale of drugs and drug products. [16]

To the Upjohn Company's credit, Dixon's investigation of "good" and "bad" ads (chosen chiefly from then current issues of the JAMA) listed advertising for two Upjohn products, Monase and Orinase, as "good." No Upjohn advertising appeared on the "bad" list.

Even this admission, however, was given grudgingly. Concerning an Orinase ad in the May 6, 1961, JAMA, FDC Reports quotes Dixon as stating that "although the color of the print describing the side effects and contraindications is distinctive, the print is too small to be read without eyestrain."[17]

This, then, would be the tone of all government investigation to follow: inquiry into hundreds of small considerations which, before it was over, would involve a considerable loss of time and money and eventually partial loss of freedom of advertising and marketing for The Upjohn Company and the industry as a whole.

The FTC investigations were not, of course, concerned solely with advertising, though advertising is naturally our major consideration here. The entire scope of these investigations is discussed by Raymond

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[16] Federal Trade Commission. Resolution Directing Investigation of Pricing Practices, Policies, Allowances, Service Discounts, Terms of Sale and Advertising of Corporations Engaged in the Sale and Distribution of Drugs and Drug Products, July 13, 1961.

[17] FDC Reports, September 11, 1961.

Moley in Newsweek. He considers FTC hearings in which six companies (American Cyanamid, Bristol-Myers Company, Bristol Laboratories, Pfizer, Olin Mathieson, and Upjohn) were charged with "unfair methods of competition and unfair acts and practices" with reference to the marketing of various forms of tetracycline. After extended hearings, according to Moley, Robert L. Piper, examiner for the FTC, prepared a 195-page report, which was "an exhaustive survey of the technical and commercial aspects of the manufacturing and marketing of these drugs. His conclusions clearly exonerated the companies from the charges."[18]

The Food and Drug Administration. Perhaps the greatest peril to drug advertising, if not to the drug industry as a whole, lay in the investigations and actions of the FDA, especially as it was affected by the Kefauver Committee. The FDA examined the question of labeling regulations and eventually of certain advertising and marketing regulations. Printer's Ink expressed the FDA position this way: "By a wild stretch of its authority, the Food and Drug Administration has decided that advertising is the same thing as labeling and thus should include all the warnings required on labels."[19]

Actually this FDA ruling did not apply to all advertising. The PMA Bulletin clarified the FDA position:

> Any labeling of a prescription drug distributed by or on behalf of the manufacturer or distributor (this would include promotional mailings) that furnishes or purports to furnish information for use or suggests a dosage, must also contain adequate information on side effects, contraindica-

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[18]Raymond Moley, "Wonder Drugs and Law," Newsweek (December 4, 1961).

[19]Printer's Ink, Editorial (December 22, 1961), p. 71.

> tions, precautions, etc. If the drug is the subject of an effective new drug application, this informational material would be that contained in the "official brochure." This requirement applies to all prescription drugs, whether "new drugs" or not, and regardless of whether the ordinary practitioner commonly knows these facts. [20]

Advertisements in medical journals and other similar publications were thus not considered labeling since they do not directly contribute to the distributional scheme of the product considered. If, however, reprints of these ads were used by detail men or as direct mailing pieces or if they furnished information for use and/or suggested dosage, they then became "labeling" and were subject to the provisions of the FDA ruling.

Changing Times treated the labeling issue somewhat humorously: "Truth in labeling can go too far. Imagine Omar Khayyam wooing his girl friend with 'a loaf of bread, calcium propionate added to retard spoilage, a jug of wine, color added, and thou.'"[21]

Many saw very little humor in the FDA ruling and its possible extensions and consequences. An editorial in Printer's Ink warned of these extensions and consequences:

> The FDA has authority over the labeling of foods and cosmetics as well as drugs. Will it, sometime in the future, require full disclosure in food and cosmetic advertising? Government control over deception in advertising is one thing, and it is welcome. Government dictation of the content of truthful advertising is another, and it is a dangerous precedent for the advertising business. 22

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[20] Pharmaceutical Manufacturers Association Bulletin No. 60-13, August 10, 1960.

[21] Changing Times (May, 1962), p. 2.

[22] Printer's Ink, Editorial (December 22, 1961).

Whether a dangerous precedent or not, the new FDA interpretation of the law became one more regulation threatening to seriously inhibit the free competition of the American drug industry. As potentially threatening a situation as this was, however, it did not offer the greatest danger to the drug industry. That was the danger of new legislation, which was to arise from the much publicized hearings before the Senate Subcommittee on Antitrust and Monopoly.

The Kefauver Committee. When Senator Kefauver began his attack upon the drug industry in 1959, it was based on the premise that the drug firms were realizing too great a profit on their products over and above the cost of their manufacturing. He cited examples of drug markups from 1,000 per cent to over 10,000 per cent. His charges made headlines and the headlines immediately created an unfavorable picture of the drug industry:

> Drug Firm Accused of Boosting Product Price 7,000 Per Cent
>
> Asthma Drug Price is Found Eleven Times Cost[23]

Without a doubt, Kefauver's methods of attack were highly unorthodox, and as a result the Senator received nearly as much criticism as he gave. But his attacks were primarily geared to hit the headlines, and the press gobbled them up as an anteater would ants. The drug industry was at a big disadvantage. As Raymond Moley reports:

> Since the business of a big company is complicated, rebuttal takes time and misses the headlines. Months passed before federal agencies responsible for administration of existing laws were heard, and the professional and trade associations appeared much later. 24

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[23]Hruska, op. cit.

[24]Raymond Moley, "Kefauver's Inquisition," Reader's Digest (December, 1961), p. 69.

Even before the drug firms could answer the excessive profit charges leveled by the Committee, they found that the original attack had poured into other areas, chiefly patenting, licensing, and advertising. The drug industry offered considerable opposition to the Committee's evident desire to change the existing law, and after a long struggle it was able to retain the status quo in the areas of patenting and licensing. On May 8, 1962, the full Senate Judiciary Committee defeated the patent and licensing provision of the proposed Senate Bill #1552 by a vote of seven to three.

Raymond Moley offers perhaps the briefest and most concise report of the initial stages of Senator Kefauver's investigation into drug advertising:

> Kefauver . . . first summoned the presidents of the drug companies, who were confronted with "when-did-you-stop-beating-your-wife" questions cunningly designed to make sensational headlines in the press. Then miscellaneous witnesses offered charges against the industry--generally wild, irresponsible, and sometimes untrue. 25

The investigations lasted some two and a half years, with testimony published in twenty-six volumes comprising 16,505 pages.[26] It is interesting to note at this point a comment from Senator Hruska, a member of the Republican minority of the Subcommittee:

> In the course of all its dreary history prior to the drug investigations the Subcommittee has burdened the library shelves of Congress with 26 volumes of transcripts. Of these weighty tomes, the steel industry hearings accounted for three; the automobile industry for two; and asphalt roofing for one. 27

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[25] Ibid.

[26] Ibid., p. 70.

[27] Hruska, op. cit.

As the hearings ground their way slowly but surely to a close, the Subcommittee met in the Senate Office Building on January 20, 1962, to question Dr. Arthur M. Sackler and Dr. DeForest Ely, Chairman of the Board and President, respectively, of William Douglas McAdams, Inc., New York, one of The Upjohn Company's several advertising agencies. The topic at hand was drug advertising and the effect of the proposed bill S. 1552 upon that advertising.

In his opening remarks Senator Kefauver outlined the reason for this last session of hearings:

> The bill contains several provisions relating directly to drug advertising. Thus it would prohibit the making of excessive claims as to a drug's efficacy. It would require the inclusion in all advertisements and descriptive matter of a full and correct statement of a drug's "efficacy" as well as a warning of "any dangerous or harmful property or effect thereof." It would also require the inclusion in advertisements of "the official name, presumably the generic name, like 'Tolbutamide' rather than just 'Orinase' printed in type at least as large and prominent as that used for any trade or brand name thereof" . . . . The problem lies in the quality of advertising and promotional material directed to the physician. Specifically, the complaint has been that the claims of a drug's efficacy are frequently excessive in terms of its actual performance and that cautions concerning a drug's side effects are often wholly absent or far from adequate. 28

Though the industry as a whole was attacked on several fronts during this session, Upjohn specifically was questioned on only a few items.

One of the first charges involved a series of nine ads for Medrol (a leading Upjohn corticosteroid) which employed in each case two

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[28]Hearings Before the Subcommittee on Antitrust and Monopoly of the Committee of the Judiciary United States Senate Pursuant to S. 1552, January 30, 31, February 1, 6, and 7, 1962, Part 6, Advertising Provisions.

x-rays. One showed a patient prior to treatment for a specific condition; the other showed a patient following treatment for that condition. Most of these ads were clearly labeled with "before Medrol" and "after Medrol" captions or similar captions.

In one ad, however, the first x-ray showed and labeled the condition (in this case, ulcerative colitis) and the second showed a patient "following successful therapy." The implication was, of course, that the therapy had been Medrol. The fact was that the two x-rays were not related as to time (before and after), were not even of the same patient, and were in fact shots of patients, neither of whom had ever been treated with Medrol!

Though some twelve pages of testimony are exhausted on the subject, the issue is really clear-cut. The Upjohn Company had been caught trying, by implication, to convince the physician that something that was not necessarily so, in fact was. At the worst this form of advertising was "false, deceptive, and misleading." Even assuming the technique was necessary to meet printing deadlines or for some other reason, it was, at best, suspect--a little on the shady side.

A second Subcommittee inquiry into Upjohn advertising practices resulted in only four pages of testimony concerning the question of vitamin B_6 advertising.

An Upjohn ad appearing in the September 10, 1958, issue of Scope Weekly had suggested that vitamin B_6 is the "Happy Baby Vitamin" and makes a contribution to the well-being of babies under six months of age. The copy had informed the physician that "that's why basic baby

vitamin supplementation calls for Zymabasic, the formula with all four: A, D, and C, plus B_6."

The ad was based upon a paper published in the July, 1957, issue of Pediatrics in which Drs. Hansen and Bessey reported their work with B_6. The paper stated that "it would seem wise to give special attention to the needs and intakes of vitamin B_6 of infants less than six months of age." This statement the ad quoted. However, the paper went on to say that this B_6 need is, in most cases, adequately provided by the baby's daily diet.

Senator Kefauver was evidently trying to suggest that there is something inherently evil about quoting out of context in advertising pieces. However, as this had been done by all parts of American business at one time or other and as the Senator really hadn't much of a case, this issue, like many other even smaller barbs and attacks, was dropped from discussion almost as soon as it appeared.

This particular session of the Subcommittee also leveled separate attacks on the industry as a whole. For example, criticism was directed at the drug advertisers who, because of differences in standards set by medical journals, sought to place the same ad in two magazines, each giving different information.

Kefauver charged that this was, in effect, misleading the physician. Dr. Sackler countered by pointing out that, because trade magazines had different standards, that did not necessarily indicate that any one was right and the rest wrong. Nor, because the ads had to include some information for one magazine and exclude it for another, did this mean that either ad was all right or all wrong. Rather, the

advertiser was attempting to present his product as honestly as possible within the requirements specified by each magazine.

Kefauver also attacked the approach of drug company detail men. He suggested that a detail man inform a physician on all products, whether or not they were produced by his company. Incredible as it may seem, the Senator actually appeared to feel that the proper function of the detail man, who is after all a salesman, is to act as a part of a giant information service to the medical profession by impartially praising and/or criticizing competitors' products as well as his own.

Certainly it is the work of the detail man to supply the doctor with information on new and existing drugs; it is one reason he is so important to the busy physician. But the detail man's primary purpose, the job for which he is being paid, is to sell his company's products. It is not the job of the drug manufacturer merely to educate his customers any more than it can be his job only to put forth a hard sell of his product. The "education" of the physician is an accepted, and important, by-product of the selling job. But it is only a by-product, a secondary function.

There is certainly no reason that selling and education cannot coexist. Dr. E. Gifford Upjohn, Board Chairman of The Upjohn Company, expressed his feeling, and no doubt that of most pharmaceutical executives, by objecting to "the implication that pharmaceutical promotion is necessarily contrary to or in competition with or opposed to education." He went on to state his feelings about the possibility of too

much regulation, which might curtail the usage of promotional and advertising tools in the drug industry:

> If we could not encourage full use of our products, making them known and understood by physicians, we could not hope for nationwide sales to finance the research establishments that have yielded today's advanced drugs and from which our future drugs will come. Remember that in America, unless we can sell our products, we cannot get them used. Unless they are used there is no point to discovery, invention and research. These are dismal prospects, for life and health are involved.
>
> . . . . . .
>
> All that we have accomplished, all that we have which makes our system superior to any other, and all our hopes for future breakthroughs in the cause of health are financed by money from sales. Sales in turn fluorish to the extent that our products are known, understood and used. Restrict competitive promotion and distribution and you will restrict sales. Restrict sales and you will surely wreck the whole edifice. 29

Senator Kefauver, however, rather obviously disagreed with this philosophy. He even carried his own thoughts a step further and indicated that drug advertising should seek to draw comparative studies with competitors' products and that all products be mentioned by name. That is, Kefauver was suggesting that drug firms make it their business to undertake lengthy comparative studies of all drug products on the market and, naming names, furnish doctors with thorough reports on each drug classification. The drug companies would thus, in effect, be working together to make the doctor's decision for him. This would perforce be done with no thought of profit in mind, but for purely altruistic reasons.

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[29]E. Gifford Upjohn, "Promotion Versus Education," Bulletin of the New York Academy of Medicine, Second Series, XXXVIII, No. 1 (January, 1962), 59-63.

The Senator apparently made his suggestions with no thought to previous testimony, which had indicated that advertising which uses comparative studies to offer disparaging and critical comments about a competitive brand, which it calls by name, is unfair advertising and in extremely bad taste. Many trade journals, in fact, refuse to allow this form of advertising to appear in their pages.

Dr. Sackler's answer to this statement reveals the situation that the drug firms were facing:

> I said before that we are damned if we do and we are damned if we don't. In one situation we have put in the names of the products. In the other situation you say that we have tried to hold back information in respect to our products. It is quite clear that there is a difference of opinion, since you hold two different positions at the same time. [30]

The questions and answers about advertising, the thrusts and counterthrusts, and the accusations and denials continued, as they had for months and months previously, finally concluding on February 7, 1962. Naturally much of the testimony during the hearings did not involve advertising and therefore is not applicable to this report. In any event, it would be futile to try to recapture the drama, excitement and personalities present during the Kefauver Subcommittee sessions.

There is, however, one more quotation that should be included. It is the advertising philosophy of the McAdams agency, which Dr. Sackler was permitted to read into the record.

> We would like to explore with you briefly the function and effectiveness of prescription drug advertising. We do so against a very positive background--the American people are

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[30] Subcommittee Hearings, op. cit., p. 3108.

> healthier, not sicker; our children have less disease, not more, our lifespan has increased, not decreased.
>
> Good ethical advertising depends on sound and useful prescription drugs. Advertising is no substitute for product performance, and no amount of money or promotional ingenuity can match demonstrated benefits for patients from good prescription drugs. The prescription drug which does not fulfill the claims of its promotion cannot be a success either medically or commercially . . . . The function of ethical pharmaceutical advertising is to promote the use of a drug within its therapeutic potential for the alleviation of illness, and to do so in accord with good medical and good business practices . . . . Ethical drug promotion, moreover, is never the sole source of a physician's information of prescription drugs. But (brackets) in bringing information about new therapies to the attention of the practicing physician, ethical drug promotion serves to close the time gap between discovery and use of such new developments. 31

On February 7, 1962, hearings on S. 1552 concluded. Shortly thereafter the bill was reported to the parent Judiciary Committee and thence to the floor of the Senate, where it began the last leg of its journey to the desk of the President and its position as a law of the land.

The bill that left the Subcommittee was one considerably weaker than the original, as the struggle put up by the formerly helpless PMA had its effect on the proposed legislation. The drug industry was somewhat reassured and was beginning to offer claims of victory in its long, drawn-out battle with the government.

In view of this, it is perhaps not so strange that criticism of the Senator's handling of the hearings picked up momentum and that magazines and newspapers which had supported him or remained silent throughout the testimony began to reevaluate the handling of the drug industry investigations.

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[31] Ibid.

Criticism of Senator Kefauver came through various channels, chief among which were magazine columns and editorials. Raymond Moley wrote some of the most vehement attacks on Kefauver. He stated that, while the Subcommittee was supposed to limit itself to monopoly, monopoly was not proved nor even charged. He also stated that the main question of the controversy was whether the public was paying excessive prices for drugs and added that "by comparison with other representative industrial companies the drug manufacturers are not making excessive profits. This is the record despite Kefauver's effort to make it seem otherwise."[32]

Henry Hazlitt, in an article in Reader's Digest, pointed out to Senator Kefauver that the average person spends no more of his health dollar, and a smaller portion of his income, for drugs today than he did in 1929. This, of course, suggests that in fact drug markups are down, not up.[33]

Some members of the medical profession, the group that was theoretically being victimized, also ventured opinions. Dr. Morris Fishbein, former editor of the JAMA said: "My personal opinion is that Mr. Kefauver is clear off the beam. He is not getting very good scientific advice, if he is getting any."[34]

But an even more powerful attack came not from magazines, not from doctors, but from Senator Roman L. Hruska, himself a member of

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[32]Moley, op. cit., p. 71.

[33]Henry Hazlitt, "Criminals or Benefactors?" Reader's Digest (December, 1961), p. 71.

[34]Printer's Ink (July 14, 1961), p. 14.

the Subcommittee. He was extremely disillusioned with Kefauver's investigation and in fact titled a speech that he gave to New Jersey pharmaceutical companies in November, 1961, "The Anatomy of Congressional Investigation, or, The Disillusionment of a Senator."

In this speech Hruska launched a vehement attack against his colleague (Kefauver) and his handling of the drug investigations. This attack covered the major areas Kefauver had attempted to investigate. As to the investigation as a whole Hruska stated:

> While protesting its concern for the welfare of the patient and the future of medical care, it is undermining forces largely responsible for the most productive life-preserving generation in the entire history of medicine . . . . No general in his right mind would ever sabotage a combat team that was winning and on the march. In war, it would be called folly and treason. 35

One of Senator Hruska's primary concerns with the drug investigation was that it seemed to him a dangerous attack on this country's free enterprise system. The fact that this attempt at drug regulation was another step toward socialism was apparently obvious to him. Several quotes from his speech indicate that he found this an extremely dangerous precedent for the United States government to set. He said:

> The committee has conducted snooping expeditions into areas of industry which are none of its business, or the business of anyone else in government unless we have already abandoned our basic system of free enterprise in favor of the corporate state . . . . There are those who would have us believe that profits mean greed. Nothing could be further from the truth. Profit means opportunity--opportunity to grow and to prosper. The profit system is the genius of American economics. 36

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[35] Hruska, op. cit.

[36] Ibid.

These quotations serve to show the depth of feeling surrounding the Kefauver investigations and in part sum up the bitterness and distaste that was left in the mouths of many of those involved in the proceedings.

But, as stated, the pharmaceutical companies put up a considerable fight and gained some ground with S. 1552. The bill had been considerably watered down, the patent section had been scratched, the drug lobbyists had influenced enough people to prevent any truly major changes in the existing laws, and despite the harassment that the drug industry had had to put up with for more than two and a half years, it looked as if it might be the one to score a victory.

And then a tragic situation occurred; tragic not only for the thousands of deformities it caused, but also because it aroused the American government, spurred on by vigorous public opinion, to turn the tables on the drug manufacturers. A pill, introduced by Chemie Grunenthal in Germany under the trade name Contergan, so perfect and so harmless that it was called "The Sleeping Pill of the Century"[37] was discovered to be responsible for phocomelia (a malformation in newborn babies resulting in either loss of some or all limbs or the appearance of imperfect, seal-like appendages). Some 7,000 babies were afflicted and the cause was directly related to Contergan, known by its generic name as thalidomide.

Thalidomide, though it was for the most part kept out of the United States, was brought to the attention of the American public by a headline hungry press. The drug manufacturers were caught standing

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[37] Newsweek (August 13, 1962), p. 52.

in a glaring spotlight, unable to dodge the questions and the unwelcome publicity thrust upon them. As Newsweek put it:

> What medical testimony and government investigation failed to achieve in thousands of hours and hundreds of reports, the thalidomide tragedy has accomplished with strong and sudden impact. Dramatically, vividly, the pill-taking public has learned that drug-makers and doctors are not infallible, that present laws are lax, and that the stream of new pills which flood the market at the rate of about one every three days are not necessarily wonder drugs. 38

The Chicago Daily News came out with what it reported was the "full story" on the thalidomide tragedy and the drug investigations. As the Daily News told it:

> Senator Estes Kefauver (D-Tenn.)--in a story not previously told--killed one huge lobbying campaign in the battle over a new drug bill with a single, well-timed thrust.
>
> At the crucial moment in the campaign, after his own tough bill appeared dead, Kefauver carefully planted a dramatic, front-page story his subcommittee had been researching for more than two months.
>
> It was the story of Dr. Frances O. Kelsey and her heroic battle against private industry pressures to keep the baby-deforming drug thalidomide off the market in the United States.
>
> The drug control issue caught fire. Within weeks the tide shifted, as Kefauver had expected it might.
>
> His tough approach was saved.
>
> The incident--commonly thought mere happenstance--came as a fitting climax to a rough, tough 2-1/2-year battle between Kefauver, as chairman of the Senate anti-trust and monopoly subcommittee, and the Pharmaceutical Manufacturers Assn. 39

The Kefauver-Harris bill (Rep. Harris initiated a bill similar to S. 1552 in the House of Representatives, which was later absorbed in

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[38] Ibid., p. 52.

[39] James McCartney, "How Drug Lobbyists Lost Big Battle," Chicago Daily News (Wednesday, October 10, 1962).

the Sentate bill), now rigidly constructed and with most major issues included, passed both the House and the Senate unanimously and was signed into law by the late President Kennedy in October, 1962.

Prior to the final enactment of the bill the advertising regulations of S. 1552 which had been withdrawn were put back in the body of the bill. This was due primarily to the impact of the thalidomide tragedy. These regulations were reported in Advertising Age.

> The basic advertising amendment adopted by the committee specifies that all ads and descriptive matter for prescription drugs, issued by manufacturer, packer, or distributor, must disclose (1) the generic name of the drug "printed prominently and in type at least half as large as that used for any trade or brand name"; (2) the formulas showing quantitatively each ingredient of the drug; and (3) information about side effects, contraindications and effectiveness. 40

This, of course, is an oversimplified explanation of a lengthy and complicated bill, but it does serve to explain the three major provisions of the advertising amendment in the new legislation.

In the final analysis the results of both the Kefauver-Harris bill and the new FDA ruling have been far-reaching. The effects have been felt in every drug company in the United States, whether it is a giant corporation or a small private concern. As Printer's Ink puts it:

> The consensus adds up to this: The drug makers can live with the bill--now law. They'll have to work harder. Some will advertise more, others less. And drugs will probably go up in price, which ironically, was one of Kefauver's major complaints when he began his drug probe. 41

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[40]"Congress Puts Teeth Back in Drug Bill," Advertising Age (August 13, 1962), p. 1.

[41]Printer's Ink (October 19, 1962), p. 15.

Whether or not the provisions of the new legislation are essential, or even important, to the state of the nation's health and well-being is open to debate and personal opinion. The greater question of whether or not this legislation opens the door to other, more dangerous government control of business is a question that only time can answer. It is a possibility that is considered by many to have potentially very serious consequences. Even the champion of government control, Senator Kefauver himself, said, "If you regulate one industry, then you would soon be regulating something else, and we would have all-out regulation, which should not be done, except in time of war or great emergencies."[42]

Certainly in the minds of many the end was justified by the means. However, the suspicion remains that Kefauver, the FDA, and FTC, in their separate but closely related attacks on the drug industry and its advertising, more closely approached "show business" than legitimate government investigation. After a number of years of trying, these government agencies had remained unable to prove the drug industry and its advertising to be the villains they had arbitrarily defined.

With or without strong government controls, one thing remains certain. In the words of the then Chairman of the Board of The Upjohn Company, Dr. E. G. Upjohn: "Promotional effort which is grounded in fact, designed to assist, and executed in good taste, is . . . ultimately in the best interests of the medical profession and the public."[43]

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[42] Nation's Business (August, 1961).

[43] Upjohn, op. cit.

CHAPTER VI

THE ORINASE STORY

Exactly half a century after the development and subsequent impressive success of Phenolax, the now firmly established Upjohn Company came up with another outstanding drug contribution. The new product was Orinase, the first and still leading oral antidiabetic drug.

The production and marketing histories of the two products are remarkably similar. Phenolax came along when the Company badly needed a big product to supply it with capital for survival in an increasingly competitive market. And it was Phenolax money which paid for The Upjohn Company's first research laboratories and allowed it to prosper and grow.

Orinase, though not essential to the continued life of the Company, was necessary to its continued growth. Though it was working on several research fronts at the time, the Company found itself standing relatively still in a business where day-to-day existence depends upon progress.

To understand fully the impact of the new drug, a little background on diabetes, the condition it treats, and on its forerunner (and still an important antidiabetic agent) insulin is necessary.

Diabetes mellitus is a condition wherein the afflicted individual is unable to metabolize carbohydrate properly. The primary cause is believed to be an inability of the pancreas to release the amount of effective insulin that is required to support normal metabolism. As a result of this inadequacy there is an impairment in the entry of

blood glucose into individual tissue cells concerned with converting it to energy. The decreased utilization of glucose results in an increased blood glucose level and an attempt by the body to eliminate the excess via the kidneys.

The more common symptoms of diabetes mellitus include excessive thirst, hunger, weight loss and excessive fatigue. In responsive patients Orinase controls these symptoms by stimulating the release of native insulin via normal channels.

A control for diabetes was somewhat slow in coming. Probably the first treatment was prescribed by Dr. John Rollo, surgeon general of the British Royal Artillery, in 1796. This was the controlled diet. "The diet," he claimed, was "to consist of animal foods principally."[44]

A century and a quarter later, in 1921, Drs. Frederick Banting and Charles Best of the University of Toronto pursued some research done a year earlier on the pancreas by Dr. Moses Barron of the University of Minnesota. Their study resulted in the isolation of insulin, one of the greatest breakthroughs in medical research. In recognition of their work they were awarded the Nobel prize.

Insulin was immediately accepted as a miracle drug, which saved many lives and allowed thousands and thousands of diabetics to return to reasonably normal existences. Unfortunately, insulin is destroyed in the digestive tract and so can be administered only by injection. It has the further drawback of being introduced into the body in massive doses rather than slowly, as the pancreas does in the normal system.

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[44]Milton Silverman, "Good News for Diabetics," The Saturday Evening Post (August 24, 1957), p. 46.

And so the search went on. Later in the 1920's Germany produced an oral antidiabetic drug called Synthalin. However, testing of the new drug was inadequate and it was found to cause serious liver damage in forty to fifty per cent of the patients who tried it.

It was not for another twenty years that an antidiabetic drug again appeared, this time by accident. In 1942 Dr. Marcel Janhon, a French physician, treated his typhoid patients with a newly developed sulfa drug called 2254-RP.[45] The new drug was remarkably effective, but erratic. It produced positive results in some patients and trembling, dizziness, and heavy perspiration in others.

Puzzled, Dr. Janhon consulted with Dr. Auguste Loubatieres at the physiology laboratories of the University of Montpelier. Dr. Loubatieres concluded that the effects Dr. Janhon described were caused by the lowering of the sugar concentration in the bloodstream. He supported his diagnosis with extensive research with animals and proved his thesis. He then further discovered that the drug was effective only if the pancreas was intact. Dr. Loubatieres published his studies, which pointed the way to another breakthrough in the struggle against diabetes, but no one apparently paid any attention.

Milton Silverman, in the August 24, 1957, Saturday Evening Post, quotes an American drug company official as saying, "We knew about his research for more than ten years. Until my dying day I shall continue to wonder why we didn't pick it up."[46]

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[45] Ibid.

[46] Ibid.

More than a decade later, in Germany in 1954, the drug firm of C. F. Boehringer and Sons discovered a long-lasting sulfa drug, carbutamide. It was given routine tests as a germ killer by Dr. Karl Fuchs of Boehringer. His testing revealed the drug's value as an oral antidiabetic agent.

Rights to the drug were purchased by Eli Lilly and Company of Indianapolis, a major Upjohn competitor, who designated the new drug BZ55. Testing in this country showed promise for the new drug until the results of tests on thousands of patients revealed that BZ55 was toxic in five to nine per cent of the cases tested. As a result, the drug was never introduced into the market.

Almost simultaneous with the development of carbutamide was the development of its chemical cousin tolbutamide by the Hoechst Dye Works of Germany. Tolbutamide was a little different from carbutamide--it was not toxic! This was supported by Hoechst's testing in 1955 of tolbutamide, designated D860, in five German clinics on 781 patients.

However, American drug companies seemed unimpressed. Apparently convinced by the failure of BZ55 that an oral antidiabetic drug could not be found, no American drug company was interested in the new D860. No company wanted to gamble on the new drug.

No company, that is, except one. "In Kalamazoo The Upjohn Co. did gamble, betting boldly on D860. It poured over a million dollars into one of the greatest clinical investigations in history. Hundreds of physicians from coast to coast used up three tones of the new drug, now called Orinase, on more than 20,000 diabetics."[47]

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[47]Paul de Kruif, "A New Day for Diabetics," Reader's Digest (April, 1958), p. 131.

The tests proved the product, the federal government passed it for prescription sales, and Orinase was on its way to being the biggest thing since Unicaps.

Orinase was completely safe. It could be taken orally, which eliminated the need for regular injections. Finally, it was not an insulin substitute; it caused the pancreas to release insulin slowly and naturally. Thus the danger of shock caused by excessive massive doses of insulin was reduced.

Orinase was to become a real boon to the millions of diabetics in the United States. The American Diabetes Association estimated in 1957 that there were one million known cases of diabetes in this country, another million undiagnosed cases, and nearly five million potential cases. The Association estimated that about 65,000 new cases were diagnosed each year.[48] (Orinase, in fact, became an aid in diagnosis because it lowered the blood sugar concentration of the normal system much more than that of the diabetic.)

And so, again armed with a new product with a unique selling proposition, The Upjohn Company entered the market with Orinase. After months of market research, background and preparation of promotional materials, Orinase was introduced to doctors in June, 1957.

A total advertising budget of $598,000 was allocated to the last half of 1957--the first six months of Orinase's promotional life. This figure represented 17.1% of total Upjohn product advertising expense for the year. Of this amount roughly $100,000 was allocated to

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[48]American Diabetes Association, Inc., "Fact about Diabetes," New York, July 18, 1957, p. 25.

Orinase announcement literature in the form of blotters, diets, booklets, and other detail materials. The remainder was spend on journal advertising, scientific displays, direct mail, samples, and production expense.

Reasonably enough for a new product's introduction, the percentage of advertising budget led the percentage of sales, which in 1957 was 5.2%. Though a comparatively small percentage of total sales, Orinase sales amounted to some $5,781,000. In December, 1957, average daily sales for Orinase amounted to $93,000. In January, 1958, this figure had risen to $103,000.

Three different forecasts were made for 1958 Orinase sales. The original, made in the fall of 1957, estimated $12,200,000. The second, made on May 22, 1958, was for projected sales of $17,000,000. A final forecast, made in June, 1958, as sales looked better and better, was $20,000,000. The actual total sales figure for Orinase in 1958 was $17,820,000, more than the first two estimates but over two million dollars less than the third.

The high $20,000,000 estimate might well have been achieved if competition had not entered the market. On November 1, 1958, Diabinese was introduced by Chas. Pfizer and Company. This product, though it captured only a 1.2% share of the total antidiabetes market versus Upjohn's 44.1%, caused a 20% decline in Orinase November sales as compared with October.

In 1959 the Orinase advertising expenditure of $982,000 represented 24.6% of all Upjohn product advertising expense. Sales increased from the 1958 level to $24,430,000, 18.5% of total sales. From

1959 on, this percentage of total advertising slowly declined and leveled off at about 10%. Sales during the same period rose consistently.

The 1963 Orinase marketing effort concentrated on internists, as these 16,000 specialists (out of 150,000 M.D.'s--approximately 10%) treat 27% of all diabetes cases. They further average 6.2 new diabetic patients every six months versus only 2.8 for general practitioners. Advertising was designed to establish and maintain The Upjohn Company as the oral antidiabetic house.

The sales message was told through journal advertising, films, direct mail, samples, and of course the all important personal selling of detail men. The new healthy journal advertising support consisted of forty-eight two-color pages,which appeared in eleven professional journals.

This aggressive marketing effort, coupled with a good product reaching the right audience, resulted in 1963 sales of roughly forty million dollars and a dominant market position. Orinase's total market share of 20.7% in 1957 rose to an estimated 55% in 1963. Most of this gain was naturally at the expense of insulin, whose market share dropped from 79.3% in 1957 to roughly 30% in 1963. The Orinase share of the oral antidiabetic market was in excess of 80%.

It is interesting to note at this point that, although Phenolax's peak sales were only $795,252 and Orinase's roughly $40,000,000, both contributed over 25% of the sales of all Upjohn products in their time.

In 1964 it is estimated that Orinase will account for about 10% of all Upjohn product advertising expense. Total Orinase sales for

the year are estimated at $42,000,000, 28.6% of total gross sales. This means that, for a company in business for over three-quarters of a century, nearly one of every three dollars spent for its products will be spent for a product which is less than seven years old. (In fact, well over 75% of all Upjohn sales are made on products less than ten years old.)[49]

Thus the now mature Upjohn Company has been able to take advantage of the research, production, and marketing lessons it has learned so well over the past eight decades. It has been able to find a need and fill it, to keep pace with one of the fastest moving industries in the world, and to supply the nation and the world with one more weapon in the continuing fight against disease.

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[49]Figures from The Upjohn Company, Marketing Research Department, July 15, 1964.

CHAPTER VII

THE EMERGENCE OF CONSUMER ADVERTISING

National advertising direct to the consumer has been used very little and very carefully by The Upjohn Company. There are two primary reasons for this:

1. The Company must consider how the physician will react to the advertising.
2. Upjohn is an ethical pharmaceutical house and in the past has chosen (with a very few exceptions) not to engage in direct consumer advertising.

In the past several years a few forays into consumer advertising have been made on behalf of nonprescription products like Unicap, Zymacap, and Mycitracin. The media employed have been almost solely women's service magazines like McCall's, Ladies Home Journal, and Good Housekeeping.

However, the Upjohn consumer advertising of twenty years ago had a broader reach than the above approaches. In the early 1940's dual interest, as well as special interest, magazines were running twelve time schedules for three or four years in a row. These included publications like Life, Colliers (which unhappily ceased publication not too long thereafter), Time, and Fortune, as well as "naturals" like Parents and Hygeia.

And so for the last dozen years or so The Upjohn Company coasted on little or no consumer advertising. The philosophy was, and to some degree still is, that the ethical (prescription) drugs are the main business of the Company and should receive the advertising support and

that the OTC (over-the-counter or nonprescription) products, supported by the Upjohn name, can take care of themselves.

Nor did Upjohn management have far to look to support this philosophy. Unicap, the vitamin sales leader of The Upjohn Company and the entire drug industry, had enjoyed multimillion-dollar sales and a dominant market position since its introduction in 1940. The peak year for Unicap was 1958, when its sales were $11,006,686.

But then, something happened! Sales began slipping--slowly at first, then more rapidly. The year 1959 found sales down more than half a million dollars; in 1960 they slipped over two and one-half million; and in 1961, nearly three million. By 1961 the 1958 market share had dropped from 28% to 20%.[50]

The reason was not readily apparent to the somewhat conservative, ethical drug-minded management of the Company. However, the answer soon became clear. In 1959, for the first time in the history of the industry, a competing multivitamin product exceeded Unicap in drug-store sales.

The product was Miles Laboratories' "One-a-Day" multiple vitamins. Miles had successfully exploited the incredibly powerful, and still new, medium of television. Using as vehicles highly rated network family shows like "The Flintstones," Miles had carried its story direct to the consumer.

Miles had learned its lesson from consumer advertisers, not ethical advertisers, and had dislodged the former giant, Unicap, from its

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[50]The Upjohn Company, Marketing Research Report, July 15, 1964.

twenty-year leadership of the field. From that day to this, Miles' continuing program of consumer advertising has enabled One-a-Day to hold the position of sales leadership in multivitamin products.

It took a six million dollar sales loss within the short space of three years to do it, but Upjohn management was at last alerted to the need to reach the consumer directly. Once more the Company found itself in a new situation, faced with the need to adapt to that situation.

However, the now mature and established corporate complex that was The Upjohn Company was neither able to, nor inclined to, rush into the new problem on a "let's take a chance" or "let's try this" basis, as had the younger Upjohn Company with Phenolax, for example.

It directed McCann-Marschalk, one of its advertising agencies and a part of the Interpublic complex, to test Unicap consumer advertising in the Denver and Kansas City markets. The campaign, relying on spot radio and point-of-purchase materials, was tied to a "give-away" promotion. The promotion ran during July and early August, 1961. During this period consumers in the Denver and Kansas City markets were offered 124 Unicaps at the 100 capsule price.

Results of the promotion revealed several things: (1) consumer advertising could, and did, increase product movement and lower inventories; (2) consumer advertising could, and did, again move Upjohn to the number one spot in market share; and (3) consumer advertising, especially on a test basis, is very expensive.

In Denver the promotion stimulated product movement approximately 55% beyond normal levels for the period. Further, Unicap inventory

levels were reduced 21% from prepromotion levels. Finally, market share rose during the test from 34% to 40%, which outstripped One-a-Day's steady 38%.[51]

In Kansas City the same promotion was conducted simultaneously, but without the use of spot radio. Here sales rose 10% above normal levels (versus Denver's 55%) and inventories dropped 8% (versus Denver's 21%). Share of market was not significantly affected.[52]

It is also important to note that the major sales gains brought about by the promotion were through the grocery chain stores--a heavily consumer-oriented retail outlet. Sales through independent and chain drugstores, the "normal" retail drug outlets, were considerably less than anticipated.

Unhappily, but reasonably enough, a comparison of sales gain and promotional expense showed a net loss to the Company of more than $9,000 in Denver and about $3,500 in Kansas City. Thus from a strictly economic viewpoint the test was a failure.

There were, however, several extenuating circumstances involved in this failure:

1. The promotion ran in midsummer, the lowest seasonal point in the vitamin market. Probably at no other time of year are customers less concerned with vitamins.
2. The offer of 24 free Unicaps could not really be considered a new or unusual or especially compelling offer, as

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[51] R. L. Pernice, "Results of Unicap Consumer Promotion," The Upjohn Company, Marketing Research Report, August 28, 1961.

[52] Ibid.

other drug companies like Squibb had been employing this technique for years.

3. Point-of-purchase and spot radio (radio in Denver only) were the media employed for the promotion. Radio was used primarily because it was felt to be less offensive to the medical profession than other media. Yet it is interesting to contemplate what might have happened if the more powerful medium of spot television or the stronger local medium of newspapers had been considered.
4. There is considerable question as to whether retailers, especially drug chains, supported the promotion fully. Certainly stronger retail support would have changed the picture considerably.

In spite of these circumstances, which doubtless had an adverse effect on the promotion's success, the fact remains that in both test markets sales went up considerably, inventories went down, and market share improved.

In the words of Mr. Ralph Pernice of Upjohn's marketing research department:

> While the results of this experiment, one of Upjohn's first ventures into the consumer area, must classify as discouraging, it would be shortsighted indeed to accept them as an across-the-board indictment of the potential promise of lay advertising of our over-the-counter line. This experiment has clearly indicated that Unicaps will respond to consumer advertising, that such a program can reduce inventories, and that this can be achieved without alienating the medical profession. 53

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[53] Ibid.

Satisfied with the results of the test, Upjohn management made the decision to enter the area of consumer advertising on a national basis. On September 7, 1961, W. F. Allen, vice-president and marketing director, and W. C. Sugg, director of Upjohn domestic sales, met in New York with G. L. Williams, senior vice-president of McCann-Marschalk, to plan national consumer advertising strategy.

On September 21, 1961, the agency submitted a proposal for an advertising campaign to support the "124 Unicaps for the price of 100" promotion on a national basis. The proposal called for radio spot advertising with some TV spot activity in the top fifty markets. This broadcast activity was to be additional to the point-of-purchase campaign planned by The Upjohn Company.

Upjohn budgeted $350,000 for the broadcast schedules and $40,000 for point-of-purchase. This money, plus the $15,000 broadcast production cost and $3,000 point-of-purchase production cost, brought the total budget expenditure to over $400,000. The promotion was to begin January 8, 1962.

Upjohn presented the proposal to its branch sales managers on October 9, 1961. During this meeting several sales managers questioned the coverage of a radio schedule. The entire program was reviewed and discussed at length, and an important decision was made to move the bulk of the budget to network television participations.

At last The Upjohn Company was making a positive effort to reach the consumer by advertising through a consumer medium. The Company hoped the new departure would not meet opposition (which to date it

(has not) from the medical profession. A November issue of Advertising Age reported the schedule in its entirety:

> Upjohn Co. will break into radio and television advertising for the first time in its history . . . . Unicap multiple vitamins will be promoted in participations on NBC-TV's "Saturday Night at the Movies" and on its daytimers "Say When," "Concentration," "Jan Murray Show" and "Loretta Young Show" from Jan. 6 through the end of February. During the same period, 30-second commercials will be run on NBC Radio's "Monitor."

The new scheduling, and the addition of extra coverage of the Kalamazoo-Grand Rapids market, brought the broadcast budget (including production costs) to roughly $372,000. This plus the $43,000 in point-of-purchase made a very respectable advertising expenditure over the two-month period of winter promotion.

The campaign began on January 8, 1962, and admirably accomplished its goal of reaching large numbers of consumers with Unicap's sales and promotion message. The agency reported these results from Nielson:

Date	Show	Ave. Rating	Ave. Share
Jan. 9	Say When	6.8%	38.4%
Jan. 9	Concentration	12.8%	52.8%
Jan. 8	Jan Murray	6.4%	25.3%
Jan. 8	Loretta Young	8.3%	31.8%
	Saturday Night Movies	21.8%	34.8%

"This means, in the instance of the movies, that 21.8 per cent of TV homes in America (total 49,000,000) were tuned in to NBC-TV. Thus, our audience totaled 10,682,000 homes. The average number of viewers per set is 2.1 so the number of viewers, according to Nielson, is 44,322,000."[54]

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[54]John N. Patterson, McCann-Marschalk Co., Inc., letter to J. S. Campbell, The Upjohn Company, January 24, 1962.

During the January-February period the Company aired a total of forty television commercials and twenty-four Monitor radio commercials. The results of the promotion were impressive. Added sales covered all but approximately $100,000 of estimated profit for the period. However, though this was money spent, it was not money lost. The normal 7.8 months' supply of inventory had shrunk to 6.9 months' supply, all time high sales to drugstores were recorded, market share and position improved considerably, established Upjohn customers increased their purchases, and an unknown number of new customers were added. The Upjohn Company had at last discovered the value of advertising direct to the consumer.

In the fall Upjohn again entered television with daytime television commercials and a five-minute health show, which was featured once a week on NBC's "The Today Show." According to a general list notice to Company employees, dated October 2, 1962, Upjohn commercials could be seen on these shows:

ABC	Yours for a Song	CBS	Calendar
	Jane Wyman Theater		I Love Lucy
	Camouflage		The Real McCoys
	Day in Court		Pete and Gladys
	Seven Keys		Love of Life
	Queen for a Day		Password
	Who Do You Trust?		House Party
			Millionaire
NBC	The Today Show		Secret Storm

The weekly "News of Your Life" health show was narrated by Howard Whitman, who had narrated several Upjohn-sponsored Medical Special Events films. Purpose of the show was to keep people up-to-date on the latest developments in the field of health. The weekly show was featured at a different time and on a different day each week.

The Upjohn Company was now beginning to feel a little more confident about consumer advertising. Its program for 1963 began with a three-month schedule which included daytime network television, "News of Your Life" on "The Today Show," and sponsorship of "Chet Huntley Reporting" and the four-part "Profile of Communism" series done by NBC.

The "vitamin season" schedule ended with the last of the Communism series on April 10. However, positive sales results prompted the Company to extend "News of Your Life" by seven weeks, the last telecast being May 16.

Broadcast advertising was then suspended again until the fall of 1963, when Upjohn sponsored a part of "The Today Show" and added sponsorship of "Exploring" on Saturday afternoons and another series of specials, "The Saga of Western Man." "The Sage of Western Man" was a four-part series produced for ABC-TV. Counting one repeat per show, it ran evenings at irregular intervals from October, 1963, through April, 1964.

> Ideas, men, and events culminating in the American Revolution, provide the dramatic material for "1776," second of the four-part series, The Saga of Western Man, Sunday, Dec. 8, from 6:30-7:30 P.M. EST (ABC-TV).
>
> The first of the four-part series, "1492," was received warmly by teachers, students, and the general public. Subsequent programs, following "1776," will deal with "1898" and "1964." The series is being produced by Helen Jean Rogers and John H. Secondari for the ABC News Special Projects Division. It is sponsored by The Upjohn Company.
>
> "1776" is narrated by Secondari, who has also written the script. Prof. Henry Steele Commager (Amherst) served as historical consultant. 55

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[55]Howard L. Hurwitz, "Teleguide," Scholastic Teacher, LIII, No. 12 (December 6, 1963).

Consumer advertising planning in 1964 has considered a move away from sponsorship of network shows into spot television and radio in the top thirty metropolitan markets. A five-week campaign utilizing 30-second radio spots and 20- and 10-second TV spots to promote the "24 free Unicaps" idea is scheduled to get underway in September. The radio spots will run during heavy driving hours, 7 to 9 A.M. and 4 to 6 P.M.; the television spots, during heavy female viewing hours, 9 to 11 A.M. and 3 to 5 P.M.

Medical journal advertising will be closely tied to the spot broadcast effort in an attempt to draw doctors into the picture by telling them about the free offer and stressing the economy of vitamin supplementation.

As The Upjohn Company's experience with consumer advertising broadens, it is apparently recognizing the now established trend away from direct association with one or several shows (due in large part to rising costs) and is moving to extend its reach, at the same time concentrating on key markets, through the use of spot broadcast advertising.

And so, although not the first this time, nor the biggest--and with its approach to the unknown tempered by the caution gained with maturity--The Upjohn Company has entered that area of almost incalculable potential, consumer advertising.

CHAPTER VIII

CONCLUSIONS AND PROJECTIONS

We have traced the promotional activity of The Upjohn Company from its first ads in trade journals, which carried a picture of a thumb crushing a friable pill, to its present position as a multimillion-dollar advertiser employing a wide variety of ads and commercials which are carried by nearly all the communication media from trade journals to spot television.

We have seen the many occasions when an organization in the vital business of protecting the nation's health has found a need and filled it. We have considered two of these contributions to the nation's and the world's well-being in depth, as we examined the research, production, and promotion of Phenolax and Orinase--products completely different, yet strikingly similar in their contribution to the prosperity of The Upjohn Company.

We have examined in detail the cause and effect of government regulation upon The Upjohn Company and the drug industry as a whole. We have seen that this regulation has forced drug advertising to become more informational and instructive and somewhat less persuasive and sales directed. Perhaps this is good, perhaps not. At any rate the drug industry, apparently not too hampered by federal regulations, continues to supply the country and the world with better weapons for the never-ending battle with disease.

Finally, we have watched The Upjohn Company awaken to a competitive danger to its position of leadership and slowly but surely involve itself in the important and growing area of consumer advertising.

We have, in short, observed the problems, opportunities, and successes of a drug firm which grew from a two-man "Pill and Granule Company" in 1886 to a 7,517 employee corporate complex in 1963; from a Kalamazoo basement in 1886 to over 150 buildings includdng 20 domestic offices and 17 foreign offices in 1963; and from gross sales in 1886 of $50,000 to 1963 sales of $191,748,042 with net profits of $25,770,991.[56]

We have watched a company more than three-quarters of a century old which has refused to stagnate in its research, production, or marketing programs--a company which is making 77.2% of its sales on products less than ten years old.[57]

It is, then, a company that has grown, is growing, and will continue to grow in the competitive drug market. The Upjohn Company's future, according to Merrill, Lynch, Pierce, Fenner, and Smith, is bright. The New York brokerage firm suggests several reasons for this:

> Its inherent strength as a broad line major drug manufacturer with a strongly-established marketing organization and an excellent reputation for quality within the medical profession;
>
> Its demonstrated effectiveness in maintaining its position in major drug markets despite intensified competition and somewhat static demand, as illustrated in the still leading position of its Unicap and Zymacap brands in the ethical vitamin field;
>
> . . . . . .
>
> The broad scope of its research program, which the company is increasingly coordinating with management and marketing goals . . .

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[56]The Upjohn Company, Annual Report, 1963.

[57]D. H. Sanborn, The Upjohn Company, Marketing Research Report, July 15, 1964.

> Its expanding operations in . . . foreign markets, which should enable it to realize more fully the complete potential of its strength in research and chemical process development; and
>
> Its modern plant facilities, which are regarded as second to none in the domestic drug industry, and its strong, liquid financial position, which should permit future growth without dilution of the stockholder's equity. 58

The facts revealed in this report force us to agree with Merrill-Lynch. It is abundantly clear that The Upjohn Company has answered, and will continue to answer, its responsibility to protect the health of the nation and the world by producing and marketing "Medicine--designed for health, produced with care. Fine pharmaceuticals since 1886."

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[58]"Brokerage Firm Rates Upjohn High; Thorough Study Indicates Growth in Years Ahead," Intercom (The Upjohn Company, Kalamazoo, Michigan), II, No. 7 (July, 1964), 6.

APPENDICES

APPENDIX I

BRIEF CHRONOLOGY OF THE UPJOHN COMPANY, 1884-1964

1884	Dr. William E. Upjohn, a young physician in Hastings, Michigan, makes experiments to try to produce a pill more soluble than others on the market. Produces a "friable" pill.
1885	Dr. William E. Upjohn and brother, Dr. Henry Upjohn, form partnership, including wives.
1885	Production begins in basement of building in Upjohn Block on South Burdick Street, Kalamazoo.
1885	First price list issued, including 186 items.
1886	Frederick L. Upjohn joins company.
1886	Dr. Henry builds two and a half story brick building at rear of Upjohn block to house pill factory.
1886 June	Dr. James T. Upjohn joins brothers in Company after graduating from School of Medicine, University of Michigan.
1886	Company makes early selling and advertising efforts.
1887 January	Dr. Henry U. Upjohn dies.
1887 November	Business incorporated as stock company with capital of $60,000. Officers elected.
1887	Company hires first Upjohn salesman, named Booth.
1887	Lazell-Dalley & Company become Upjohn distributors in New York. Truax-Greene & Company become Upjohn distributors in Chicago.
1888	Archie Stone, another Upjohn salesman, hired.
1888	Building now known as No. 4 built on East Lovell Street. Four stories.
1889	Charles Little employed in production department.

1890 October 15	New York branch opened. F. L. Upjohn, manager.
1890	Severe competition encountered with new compressed tablet. Period of financial strain begins which lasts until after turn of century.
1891	First listing of tablets made by Upjohn.
1891	H. Sanford Mead, salesman, employed.
1891	Building No. 5 built next to No. 4. Four stories.
1892	Fluidextracts first manufactured.
1895	Dr. W. E. Upjohn purchases Babcock farm near Augusta. Calls it Brook Lodge.
1898	Dr. William Abbett, Indiana salesman, employed.
1898 February	Hall Brothers and Company, Kalamazoo pharmaceutical manufacturers, destroyed by fire.
1899	Arthur Crooks, Albert Latson, and Frederick Childs employed. (All three had worked at Hall Brothers Chemical Company.)
1899	Development of tinctures, elixirs, syrups, cordials, wines, ointments.
1900	John S. McColl employed as bookkeeper. William F. Little employed in tablet department.
1900	Palmo-Dionin, first cough syrup, developed by Fred Childs.
1902	Reorganization as The Upjohn Company.
1902	Caripeptic Liquid first listed in catalog.
1904	Dr. L. N. Upjohn employed.
1904	E. R. Lewis appointed first sales manager.
1905	Fred Staley employed in assay laboratory.
1905	Walters H. Sellman opens agency in San Francisco.
1905	Beginnings of cost accounting.

1905	Establishment of Council on Pharmacy and Chemistry interrupts Upjohn advertising in Journal of America Medical Association.
1906	Dr. L. N. Upjohn made sales manager.
1906 December	Dr. L. N. Upjohn goes to New York as branch manager.
	George C. McClelland becomes sales manager at Kalamazoo.
1906	Dr. W. E. Upjohn works out plan of bank insurance.
1907	F. L. Upjohn retires.
1907	W. Harold Upjohn enters company.
1907	Dr. S. Rudolph Light employed. (October 1, 1907.)
1907	Phenolax Wafers announced.
1908	Sales conferencing initiated at New York.
1909	First Overflow issued.
1909	Kansas City branch opened with Malcolm Galbraith as manager.
1909	Company reorganizes after withdrawal of Dr. J. T. Upjohn and F. L. Upjohn.
1909	Dr. S. Rudolph Light becomes production manager, succeeding Dr. J. T. Upjohn.
1911	San Francisco agency changed to branch. Waters H. Sellman, manager.
1911	Lewie M. Crockett joins company.
1911 March 8	Plant swept by fire.
1912	Formation of American Drug Manufacturers Association.
1913	White Office built.
1913	Pilot laboratory begins operation.
1913	Percolating distilling building unit built.
1913	Dr. F. W. Heyl employed to organize research department.

1913	F. G. Varney employed.
1914	Dr. M. D. Hart joins Company as reasearch fellow in chemistry.
1918 October 18	First sales conference in Kalamazoo.
1919	New York branch building built. Hobart Upjohn, architect.
1920	J. Bryant Fullerton, Stanley Morris, and E. D. Mayo employed.
1920	Fluid packaging building built.
1921	Citrocarbonate announced.
1922	W. Harold Upjohn and Harry H. Freeman go to England to arrange for manufacture there of wafer like Phenolax to be called Mylax.
1924	Building No. 18 completed.
1925 November 18	Warren K. Allen joins organization.
1926	Contact department organized.
1926	Two Congress playing card factory buildings purchased, to be known as Buildings 19 and 20.
1928	Dr. H. S. Adams appointed plant superintendent.
1928 October 15	W. Harold Upjohn dies.
1930	Dr. S. R. Light resigns.
1930	Development of soft elastic capsules described.
1931 January 2	Memphis branch opens a6 299 South Front Street. F. W. Griffis, sales manager, W. G. Freeman, office manager.
1932 October 18	Dr. W. E. Upjohn dies.
1933	Research Industrial Fellowships announded (first series).

1933	Bank holiday begins.
1933	Loose leaf catalog adopted.
1933	Dr. John F. Norton employed as head of bacteriology department.
1934	First history of The Upjohn Company written by Dr. L. N. Upjohn at the request of the American Pharmaceutical Association.
1934	Dioramas loaned to Smithsonian Institute at Washington, D. C.
1934	Concentrate building erected.
1934	Kalamazoo branch opens as separate entity.
1934 January 2	Dallas branch opens at 901 McKinney Avenue. W. Fred Allen, sales manager, D. H. Dowell, office manager.
1935 November 1	Toronto branch opens at 384 Adelaide Street. Violet Braiden, office manager.
1935	Administration building (No. 24) and power plant erected and occupied.
1936	Tincture Mercresin and Oral Pentacresol introduced.
1936	New production building (No. 25) completed.
1936 April 1	Atlanta branch opens at 25 Fifth Street. W. G. Freeman, sales manager, D. H. Dowell, office manager.
1937	Medical department established.
1937	Personnel department established. F. G. Varney, manager.
1938	H. E. Turbeville made assistant personnel manager.
1938 January 2	Cleveland branch opens. R. C. Byce, sales manager, F. O. Chapman, office manager. Located at 1740 Chester Avenue.
1938 September 1	Council on Pharmacy and Chemistry of the American Medical Association announces acceptance of first fifteen Upjohn products.
1940	Dr. L. N. Upjohn talks on Company history to foremen and supervisors.

1940 January 2	Boston branch opens at 11 Deerfield Street. H. W. Bowdoin, sales manager, J. J. Neylan, office manager.
1941	Printing department expands.
1941	Steel sheds erected for cod liver oil storage, two miles north of Kalamazoo.
1941	Rosenbaum property on East Lovell Street purchased for additional parking space.
1941	Research Industrial Fellowships announced (second series).
1941	SCOPE, journal for physicians, begins publication.
1941 December 1	Minneapolis branch opens at 110 Fifth Street. F. L. Tritle, Jr., sales manager, H. J. White, office manager.
1942	Soft elastic capsule building completed.
1942	Joldersma & Klein property purchased for expansion of medical department.
1944	Dr. F. W. Heyl resigns. Dr. M. C. Hart appointed to fill vacancy.
1944	Physics laboratory established. Oliver Woods, director. Transferred from production to research division on May 1, 1945.
1945	New revised group insurance adopted.
1945-46	Building planned for production of antibiotics by submerged culture method.
1945	Trademark, "thumb crushing pill" given up. New trademarked - name UPJOHN.
1945 February 20	Joint seminar of research and medical groups starts series of meetings.
1946	UPJOHN NEWS begins publication.
1946 August 7	First meeting of Basic Operating Committee with D. S. Gilmore, M. C. Hart, E. G. Upjohn, C. V. Patterson, and W. F. Allen present.
1946	Film, "We, The Upjohn Company," produced.

1946	Electron microscope purchased.
1945-6	New manufacturing plant on Portage Road planned.
1946-7	First buildings of Portage Road plant erected - antibiotics and adrenal cortex buildings.
1946	Temporary power plant erected at Portage Road.
1947	Disposal plant erected at Portage Road.
1947	John S. McColl resigns as treasurer. Succeeded by D. G. Knapp.
1947	R. S. Jordan and R. G. White visit Latin America.
1948	H. B. Roberts goes around the world.
1948	Catalog simplified.
1948 January 2	Chicago branch opens at 1001 East 87th Street. John Schma, sales manager, F. O. Chapman, office manager.
1948 January 2	Portland, Oregon branch opens at 1333 N. E. Union Avenue. J.A.S. Rodda, sales manager, M. C. McDonnell, office manager.
1948	Fine chemicals department established.
1949	Dr. M. C. Hart visits Europe.
1949	Folic acid manufactured. This project represents the first really significant venture of this Company in the field of synthetic chemical manufacture.
1949	Printing department enlarged.
1950	R. G. White visits Mediterranean and Near-East markets.
	R. S. Schreiber appointed vice-president and director of research (May).
1951	Stanley Morris, first manager of the advertising department and editor of The Overflow, retires (Jan.).
	New Portage Road production plant opens (June).
1952	Export Division established. R. S. Jordon named to head activities. Upjohn makes cortisone by new process, microbiological synthesis.

1952 Dr. L. N. Upjohn retires as chairman of the Board of Directors (September). Donald Gilmore elected to chairman of the board and managing director. Dr. E. G. Upjohn elected president.

1953 Mrs. W. E. Upjohn, wife of the founder of The Upjohn Company, dies at 87 years of age (October).

Solvent recovery unit added to Portage Road facilities.

1954 H. W. Bowdoin retires as sales manager of Boston branch.

The Upjohn Company of Canada moves to new quarters at 865 York Mills Road, Toronto.

1955 Dr. F. W. Heyl retires as director of research.

Disneyland opens. Upjohn drugstore included on Nineteenth Century Street.

1956 Brook Lodge estate and 160 acres purchased. Construction of guest cottages begins.

Memphis branch moves to new quarters (December).

First South American subsidiary established in San Paulo, Brazil.

Washington, D. C., branch opens (April).

1957 Conference hall at Brook Lodge constructed.

Long Island branch opens.

Orinase released for general sale after two years' extensive clinical evaluation.

1958 Sixteen hundred acre farm acquired and placed under direction of Veterinary Division.

New branch buildings in Kansas City and Minneapolis opened.

International Operations, Inc., a management service organization founded.

Upjohn Overseas Corporation and Upjohn Inter-American Corporation founded.

Columbia subsidiary established in Bogata.

1958 Tuco (Pty) Ltd., founded in Johannasburg, South Africa

Upjohn stock sold publicly through secondary offering of 2,410,000 shares.

1959 C. V. Patterson, executive vice-president, retires. R. T. Parfet and P. S. Parish elected executive vice-presidents.

New pharmaceutical production plant opens in Sydney, Australia.

New San Francisco distribution center opens at Menlo Park, California.

1960 New production building dedicated in Mexico City.

Two new subsidiaries founded in Europe--Upjohn S.A. in Milan, Italy and Upjohn S.A. in Brussels, Belgium.

1961 D. S. Gilmore retires as active head of the company. R. T. Parfet elected president and general manager.

H. B. Allen, corporate secretary, retires.

Michigan Agricultural Company formed.

Chemical development building completed.

General office building on Portage Road completed and occupied.

1962 Controlling stock interest in Anodia S.A., Buenos Aires, Argentina, acquired.

Assets of The Carwin Company, an organic chemical manufacturer with plants in North Haven, Connecticut and Houston, Texas acquired.

L. M. Crockett, vice-president for engineering, dies.

Leslie Harrop, vice-president and general counsel, retires because of ill health. G. Thomas appointed general counsel.

1963 J. C. Gauntlett elected vice-president for pharmaceutical marketing.

R. M. Boudeman, president of Upjohn International, elected a vice-president.

1963	C. H. Ludlow elected treasurer. Gordon Knapp retires as treasurer.
	C.P.R. International Corporation, Torrance, California, fabricators of polyurethane foam, acquired.
	New manufacturing building in Puurs, Belgium, completed.
1964	C. P. Continental S.A., cosmetic firm in Mexico City, acquired.
	A. H. Howard Chemical Company, Canada, manufacturers of agricultural products, acquired.
	Joint venture in Spain established.

APPENDIX II

ORGANIZATION CHARTS

Selected Organization Charts Showing
Top Management and Marketing Structure

ORGANIZATION CHART

THE UPJOHN COMPANY

SEPTEMBER 1, 1964

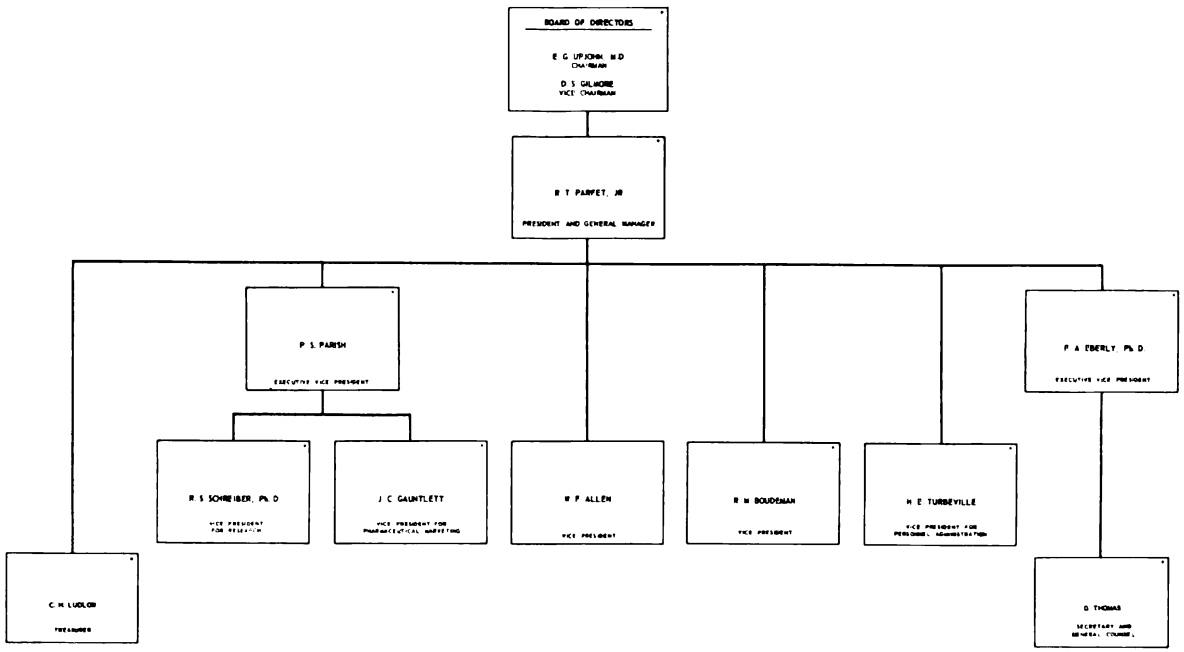
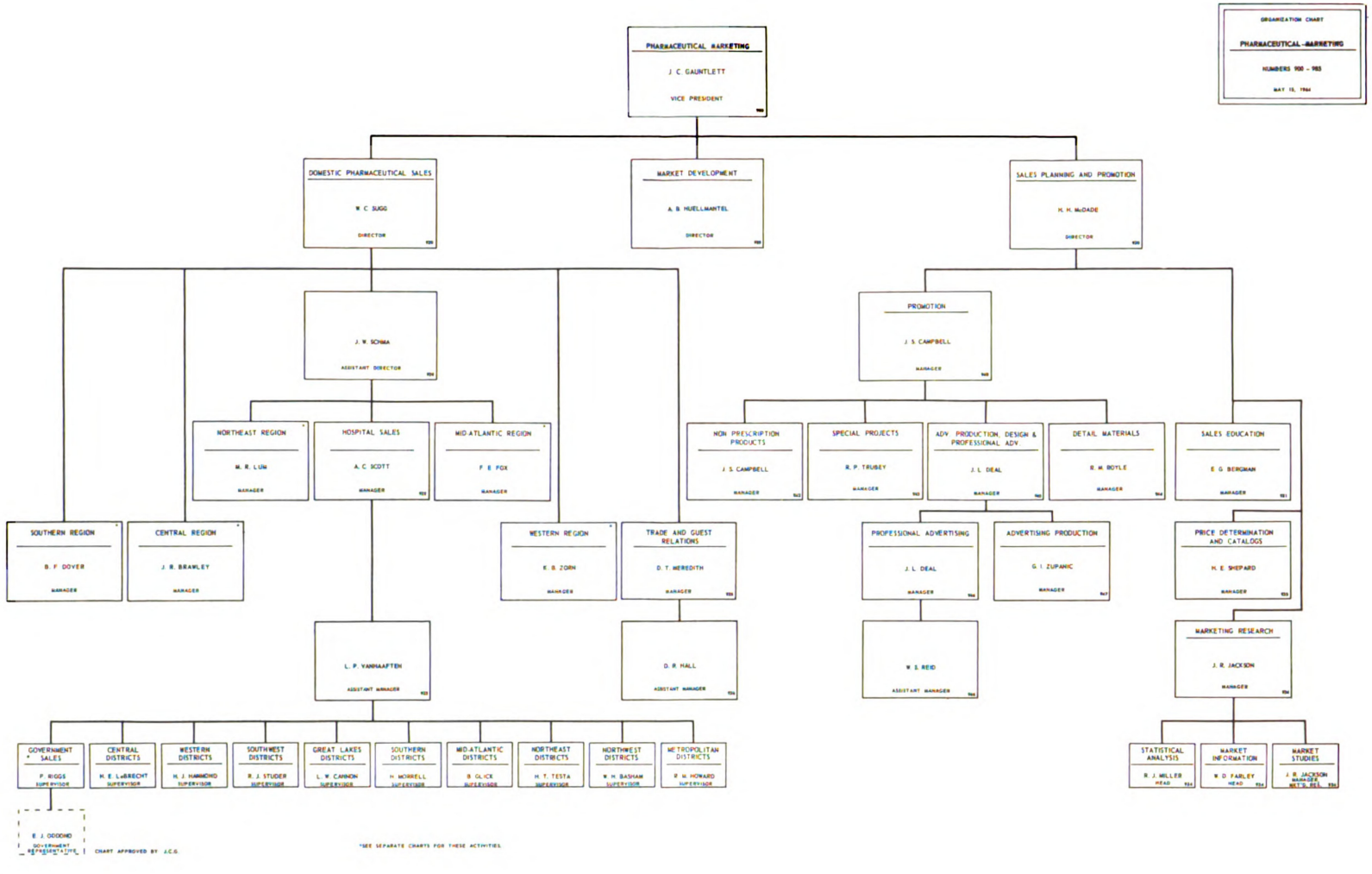


CHART APPROVED BY R.T.P.

*SEE SEPARATE CHARTS FOR THESE ACTIVITIES


ORGANIZATION CHART
PHARMACEUTICAL MARKETING
NUMBERS 900 - 985
MAY 15, 1984
PHARMACEUTICAL MARKETING
J. C. GAUNTLETT
VICE PRESIDENT
DOMESTIC PHARMACEUTICAL SALES
W. C. SUGG
DIRECTOR
MARKET DEVELOPMENT
A. B. HUELLMANTEL
DIRECTOR
SALES PLANNING AND PROMOTION
H. H. McDADE
DIRECTOR
J. W. SCHMA
ASSISTANT DIRECTOR
PROMOTION
J. S. CAMPBELL
MANAGER
NORTHEAST REGION
M. R. LUM
MANAGER
HOSPITAL SALES
A. C. SCOTT
MANAGER
MID ATLANTIC REGION
F. E. FOX
MANAGER
NON PRESCRIPTION PRODUCTS
J. S. CAMPBELL
MANAGER
SPECIAL PROJECTS
R. P. TRUBEY
MANAGER
ADV. PRODUCTION, DESIGN & PROFESSIONAL ADV.
J. L. DEAL
MANAGER
DETAIL MATERIALS
R. M. BOYLE
MANAGER
SALES EDUCATION
E. G. BERGMAN
MANAGER
SOUTHERN REGION
B. F. DOVER
MANAGER
CENTRAL REGION
J. R. BRAWLEY
MANAGER
WESTERN REGION
K. B. ZORN
MANAGER
TRADE AND GUEST RELATIONS
D. T. MEREDITH
MANAGER
PROFESSIONAL ADVERTISING
J. L. DEAL
MANAGER
ADVERTISING PRODUCTION
G. I. ZUPANIC
MANAGER
PRICE DETERMINATION AND CATALOGS
H. E. SHEPARD
MANAGER
L. P. VANHAAFTEN
ASSISTANT MANAGER
D. R. HALL
ASSISTANT MANAGER
W. S. REID
ASSISTANT MANAGER
MARKETING RESEARCH
J. R. JACKSON
MANAGER
GOVERNMENT SALES
P. RIGGS
SUPERVISOR
CENTRAL DISTRICTS
H. E. LaBRECHT
SUPERVISOR
WESTERN DISTRICTS
H. J. HAMMOND
SUPERVISOR
SOUTHWEST DISTRICTS
R. J. STUDER
SUPERVISOR
GREAT LAKES DISTRICTS
L. W. CANNON
SUPERVISOR
SOUTHERN DISTRICTS
H. MORRELL
SUPERVISOR
MID ATLANTIC DISTRICTS
B. GLICK
SUPERVISOR
NORTHEAST DISTRICTS
H. T. TESTA
SUPERVISOR
NORTHWEST DISTRICTS
W. H. BASHAM
SUPERVISOR
METROPOLITAN DISTRICTS
R. M. HOWARD
SUPERVISOR
STATISTICAL ANALYSIS
R. J. MILLER
HEAD
MARKET INFORMATION
W. D. FARLEY
HEAD
MARKET STUDIES
J. R. JACKSON
MANAGER
MKT'G. RES.
E. J. ODOOHO
GOVERNMENT REPRESENTATIVE
CHART APPROVED BY J.C.G.
*SEE SEPARATE CHARTS FOR THESE ACTIVITIES

ORGANIZATION CHART

NORTHEAST REGION PHARMACEUTICAL SALES

MAY 15, 1964

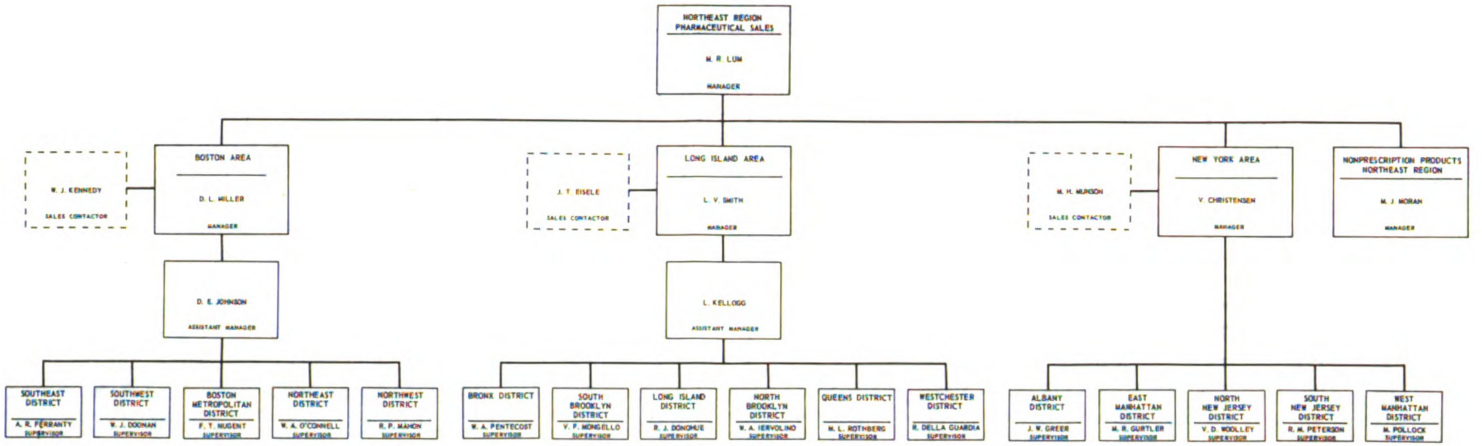


CHART APPROVED BY: R.C.S.

ORGANIZATION CHART

MID-ATLANTIC REGION
PHARMACEUTICAL SALES

MAY 15, 1964

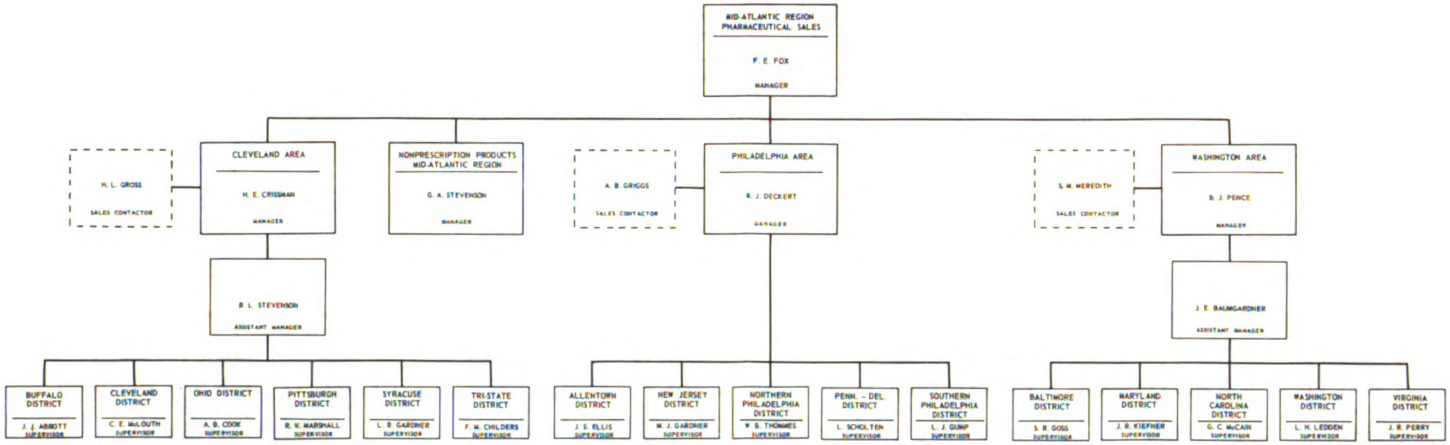


CHART APPROVED BY: W.C.S.

ORGANIZATION CHART

CENTRAL REGION PHARMACEUTICAL SALES

MAY 15, 1964

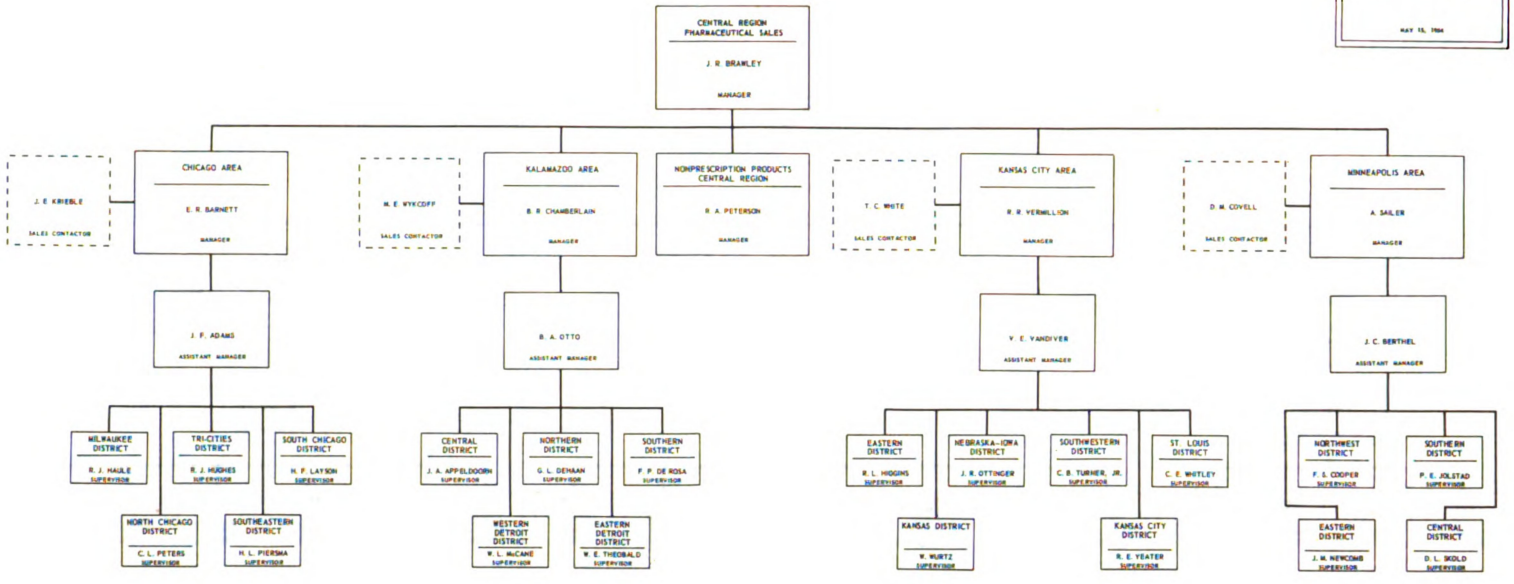


CHART APPROVED BY: W.C.S.

ORGANIZATION CHART

SOUTHERN REGION PHARMACEUTICAL SALES

MAY 15, 1964

CHART APPROVED BY: V.C.S.

ORGANIZATION CHART

WESTERN REGION PHARMACEUTICAL SALES

MAY 15, 1964

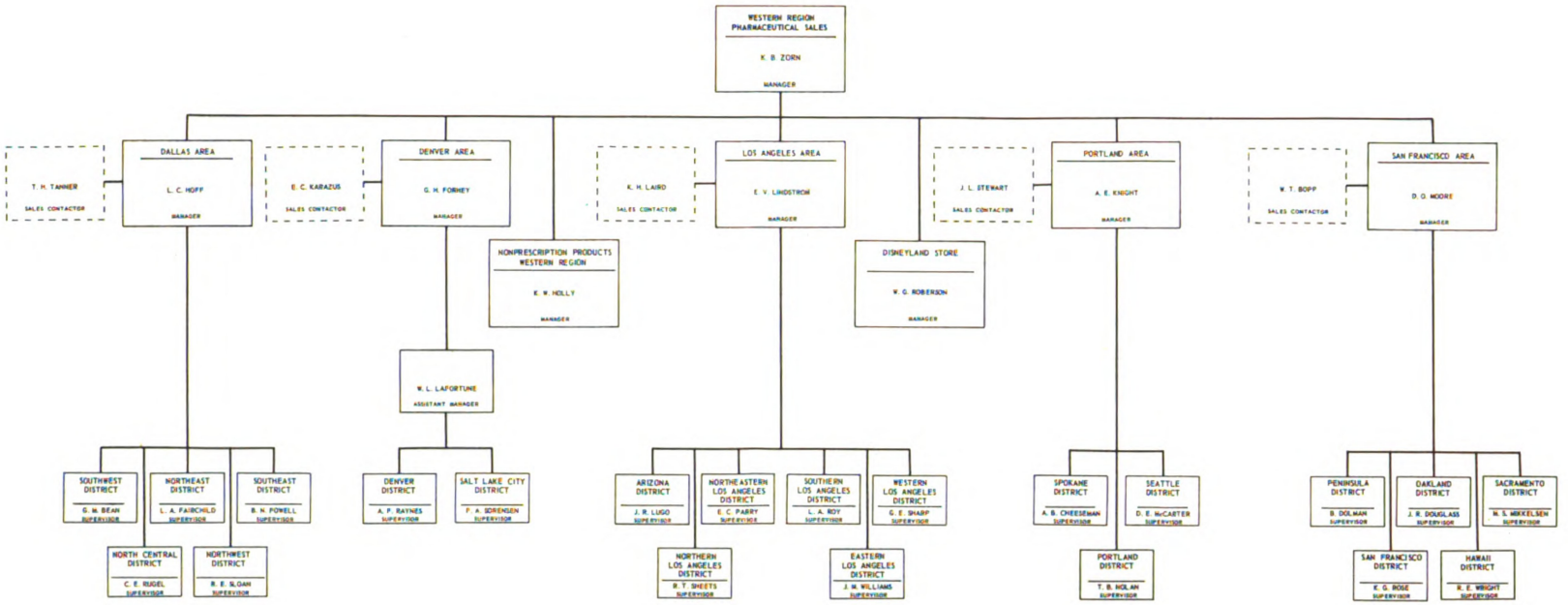
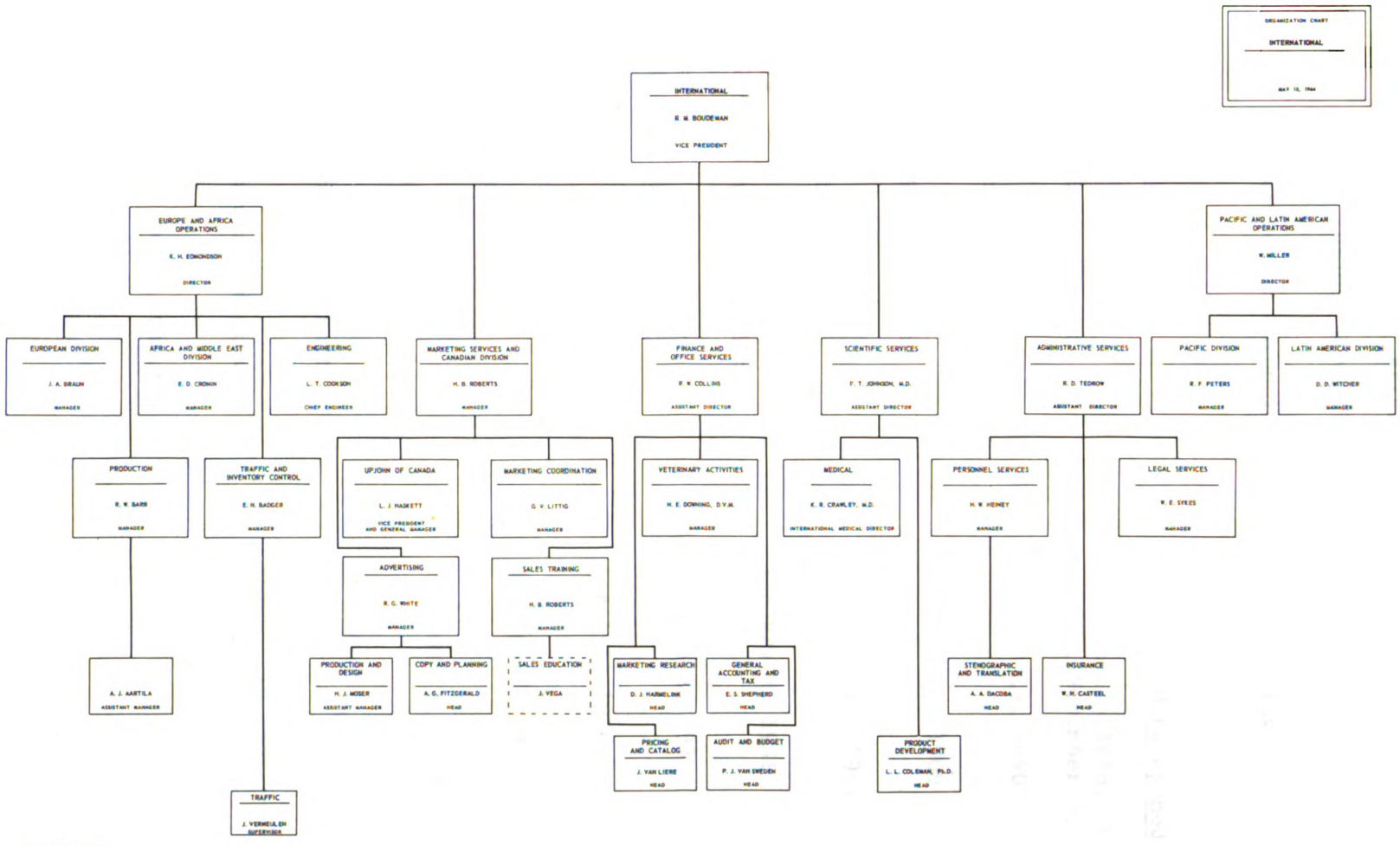


CHART APPROVED BY: W.C.S.


ORGANIZATION CHART
INTERNATIONAL
MAY 15, 1964
INTERNATIONAL
R. M. BOUDEMAN
VICE PRESIDENT
EUROPE AND AFRICA OPERATIONS
K. H. EDMONDSON
DIRECTOR
PACIFIC AND LATIN AMERICAN OPERATIONS
W. MILLER
DIRECTOR
EUROPEAN DIVISION
J. A. BRAUN
MANAGER
AFRICA AND MIDDLE EAST DIVISION
E. D. CRONIN
MANAGER
ENGINEERING
L. T. COOKSON
CHIEF ENGINEER
MARKETING SERVICES AND CANADIAN DIVISION
H. B. ROBERTS
MANAGER
FINANCE AND OFFICE SERVICES
R. W. COLLINS
ASSISTANT DIRECTOR
SCIENTIFIC SERVICES
F. T. JOHNSON, M.D.
ASSISTANT DIRECTOR
ADMINISTRATIVE SERVICES
R. D. TEDROW
ASSISTANT DIRECTOR
PACIFIC DIVISION
R. F. PETERS
MANAGER
LATIN AMERICAN DIVISION
D. D. WITCHER
MANAGER
PRODUCTION
R. W. BARR
MANAGER
TRAFFIC AND INVENTORY CONTROL
E. H. BADGER
MANAGER
UPJOHN OF CANADA
L. J. HASKETT
VICE PRESIDENT AND GENERAL MANAGER
MARKETING COORDINATION
G. V. LITTIG
MANAGER
VETERINARY ACTIVITIES
H. E. DOWNING, D.V.M.
MANAGER
MEDICAL
K. R. CRAWLEY, M.D.
INTERNATIONAL MEDICAL DIRECTOR
PERSONNEL SERVICES
H. W. HEINEY
MANAGER
LEGAL SERVICES
W. E. SYKES
MANAGER
ADVERTISING
R. G. WHITE
MANAGER
SALES TRAINING
H. B. ROBERTS
MANAGER
A. J. AARTILA
ASSISTANT MANAGER
PRODUCTION AND DESIGN
H. J. MOSER
ASSISTANT MANAGER
COPY AND PLANNING
A. G. FITZGERALD
HEAD
SALES EDUCATION
J. VEGA
MARKETING RESEARCH
D. J. HARMELINK
HEAD
GENERAL ACCOUNTING AND TAX
E. S. SHEPHERD
HEAD
STENOGRAPHIC AND TRANSLATION
A. A. DACOBA
HEAD
INSURANCE
W. H. CASTEEL
HEAD
PRICING AND CATALOG
J. VAN LIERE
HEAD
AUDIT AND BUDGET
P. J. VAN SWEDEN
HEAD
PRODUCT DEVELOPMENT
L. L. COLEMAN, Ph.D.
HEAD
TRAFFIC
J. VERMEULEN
SUPERVISOR
CHART APPROVED BY: R.M.B.

APPENDIX III

UPJOHN DOMESTIC BRANCH OFFICES

Listed in Chronological Order of Opening

Branch	Date Opened
Kalamazoo 301 Henrietta Street	(Originally 1885. Separate entity, November 1, 1934)
New York 40 Seventh Avenue, South	October 15, 1890
Kansas City 25 East Pershing Road	December 1, 1909
San Francisco 199 First Street	February 16, 1911
Memphis 299 South Front Street	January 2, 1931
Dallas 901 McKinney Avenue	January 2, 1935
Atlanta 25 Fifth Street, N. W.	April 1, 1936
Cleveland 1740 Chester Avenue	January 2, 1938
Boston 11 Deerfield Street	February 1, 1940
Minneapolis 110 North Fifth Street	December 1, 1941
Los Angeles 900 N. Cahuenga Boulevard	January 2, 1947
Portland 1333 N. E. Union Avenue	January 2, 1948
Chicago 1001 East 87th Street	January 2, 1948

Philadelphia 401 North Broad Street	July 1, 1949
Denver 3730 East 48th Avenue	November 1, 1954
Washington 6130 North Capitol Street	April 1, 1956
Cincinnati 4910 Para Drive	August 1, 1956
Long Island 205 Glen Cove Road	June 3, 1957
Buffalo 3901 Genessee Avenue	July 1, 1964
Pittsburg Four Parkway Center	September 1, 1964

APPENDIX IV

FOREIGN SUBSIDIARIES

Listed in Chronological Order of Opening

Toronto, Canada	July 24, 1952
São Paulo, Brazil	October 15, 1954
Mexico City, Mexico	July 21, 1955
Sydney, Australia	September 13, 1956
Bogota, Colombia	January 17, 1958
Johannesburg, South Africa	February 24, 1958
Paris, France	August 8, 1958
Colon, Panama	December 6, 1958
Tokyo, Japan	July 3, 1959
Caracas, Venezuela	November 9, 1959
Milan, Italy	April 21, 1960
Brussels, Belgium	September 9, 1960
Lima, Peru	March 3, 1961
Manila, Philippine Islands	February 22, 1962
Crawley, England	April 8, 1962
Buenos Aires, Argentina	July 20, 1962
Athens, Greece	August 8, 1963

APPENDIX V

KEFAUVER BILL (S.1552)--PROVISIONS IN BRIEF

1. No patent for a modification of a drug or a combination of drugs unless new product has substantially greater therapeutic effect than the original.

2. No patent for modification or combination until Patent Commissioner obtains (though he doesn't have to agree with) the opinion of the Secretary of HEW as to whether new product has substantially greater therapeutic effect than original.

3. No new drug application approved unless HEW finds it is efficacious for claimed uses.

4. No new drug can legally be shipped in interstate commerce without express okay of HEW.

5. Approved new drug application can be suspended if substantial evidence of lack of safety or efficacy turns up.

6. Secretary may determine official names of drugs if non-governmental procedures do not work.

7. Labels must carry official names in same type size as brand names.

8. Labels must carry expiration dates.

9. All antibiotics must be certified by government.

10. Any drug information transmitted to doctors must include full text of package insert.

11. All ads (including "oral") must show official name as large as brand name and must include warning and other statements approved by Secretary and full and correct statement of efficacy.

12. Drug firms must register with Secretary and satisfy his requirements as to the ability to produce each drug before being allowed to produce it and continue to produce it.

13. Federal inspector can check at any time to see if plant meets registration standards.

14. Foreign producers can register but may be charged inspection fees.

15. Secretary can revoke registrations.

16. Secretary must publish and distribute copies of package inserts.

17. Registration provisions require notice and appeal.

APPENDIX VI

FTC RESOLUTION DIRECTING INVESTIGATION OF THE DRUG INDUSTRY

UNITED STATES OF AMERICA
BEFORE FEDERAL TRADE COMMISSION

COMMISSIONERS:

Paul Rand Dixon, Chairman
Robert T. Secrest
Sigurd Anderson
William C. Kern
Philip Elman

RESOLUTION DIRECTING INVESTIGATION OF PRICING PRACTICES, POLICIES, ALLOWANCES, SERVICES, DISCOUNTS, TERMS OF SALE AND ADVERTISING OF CORPORATIONS ENGAGED IN THE SALE AND DISTRIBUTION OF DRUGS AND DRUG PRODUCTS.

WHEREAS, the Commission has information to the effect that certain corporations engaged in the manufacture, distribution and sale of drugs and drug products in interstate commerce have, since January 1, 1959, discriminated in price, allowances, discounts and services in favor of some purchasers and against other competing purchasers of commodities of like grade and quality, and engaged in unfair methods of competition in commerce and unfair or deceptive acts or practices in commerce; and

WHEREAS, such practices and policies may constitute violations of Section 2 of the Clayton Act as amended by the Robinson-Patman Act (15 U.S.C. Sec. 13) and Section 5 of the Federal Trade Commission Act (15 U.S.C. Sec. 45), statutes administered by the Commission; and

WHEREAS, the Commission believes that it is in the public interest to investigate the said practices and policies of such corporations to determine whether they constitute violations of the said statues; and

WHEREAS, the Commission has the authority under subsections (a) and (b) of Section 6 of the Federal Trade Commission Act (15 U.S.C. Sec. 46 (a) (b)) to investigate corporations engaged in interstate commerce and their practices to determine whether the laws administered by the Commission may have been violated:

NOW, THEREFORE, BE IT RESOLVED that the Commission, in the exercise of the powers vested in it by law, and pursuant to its published procedures and rules of practice (16 CFR, 1958 Supp., 1.1 et seq.), and with the aid of any and all compulsory processes available to it, do forthwith proceed to investigate, for the reasons and purposes stated

herein, the organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals, of corporations engaged in the manufacture, distribution and sale of drugs and drug products.

By the Commission.

Joseph W. Shea, (signed)
Secretary

Date: July 13, 1961

UNITED STATES OF AMERICA
BEFORE FEDERAL TRADE COMMISSION

COMMISSIONERS:

Paul Rand Dixon, Chairman
Robert T. Secrest
Sigurd Anderson
William C. Kern
Philip Elman

In the Matter of	)	
THE UPJOHN COMPANY	)	FILE NO. 621 0158

SPECIAL REPORT ORDER TO CORPORATIONS
ENGAGED IN THE MANUFACTURE, DISTRIBUTION
AND SALE OF DRUGS AND DRUG PRODUCTS

The Federal Trade Commission, in the exercise of the powers vested in it by Section 6 of the Federal Trade Commission Act, has adopted and entered of record a resolution, a copy of which is enclosed, authorizing and directing an investigation of companies engaged in the manufacture, distribution and sale of drugs and drug products to determine if any such companies are engaged in acts and practices in violation of Section 2 of the amended Clayton Act or Section 5 of the Federal Trade Commission Act.

This report is mandatory from corporations. Within forty-five (45) days from the date of receipt of this Special Report Order, your company is ordered to return two copies of a completed report in response to this questionnaire to the Federal Trade Commission, Washington 25, D. C. "Your Company" includes the reporting company and its divisions and subsidiaries located within the United States. In responding to this questionnaire, report separately for each division or subsidiary engaged in the manufacture, distribution and sale of drugs and drug products.

This report is required to be subscribed and sworn to by an official who has prepared or supervised its preparation from the books and records of your company.

Your report should restate each item of this order with which the corresponding answer is identified. If any question cannot be answered fully, give such information as is available to you and explain wherein and why your answer is incomplete.

I

1. Furnish the correct corporate name, mailing address, and the state and date of incorporation of the company submitting this report.

2. Furnish the correct name and mailing address (and the state and date of incorporation where applicable) of each division or subsidiary included in this report.

3. If for any reason you are not reporting for all of your divisions or subsidiaries located within the United State engaged in the manufacture, distribution, and sale of drugs and drug products since January 1, 1959, name each such division or subsidiary not included and state the reason for not including it in this report.

4. If you have a parent company engaged in the manufacture, distribution, and sale of drugs and drug products which is not included in this report, name such parent company and state the reason for not including it in this report.

II

Briefly describe the operation of your company and furnish the following information:

1. A table of organization.

2. A list, for the period from January 1, 1959, to date, showing the official title, name and address of each officer, director, and sales executive.

3. The most recent annual report.

4. All memoranda or reports filed with the Securities and Exchange Commission and any analysis, studies, memoranda or presentations made in connection with the offering or sale of stocks or bonds since January 1, 1959.

5. A list of the drugs and drug products manufactured, distributed or sold.

6. A general description covering the method of distribution of each drug or drug product.

7. Copies of all brochures, memoranda, or other writings furnished to your sales force or commission men relating to the sale or distribution of prescription drugs and drug products for the period from January 1, 1960, to date.

III

Report the total dollar volume of sales in the United States of drugs and drug products by your company during the calendar year 1960 or during the most recently completed fiscal year (indicate the period covered by your reply).

IV

Report separately for the same period used in answering III, the total dollar volume of sales in the United States of prescription drugs and drug products which contain any of the following:

(a) Antibiotics

(b) Barbiturates

(c) Tranquilizers

(d) Hormones

(e) Antihistamines

(f) Vitamins

(g) Narcotics

(h) Sulfonamides

Prescription drugs and drug products containing two or more of the types of drugs listed above should be reported separately with an identification of the types of drugs included therein. Bulk sales, private label, and unlabeled dosage form sales are to be reported separately.

V

Furnish a complete list and description covering each dosage form and package size of each prescription drug and drug product containing any of the types of drugs listed under IV, together with the trade name, or names, used in the marketing of each such dosage form and package size.

VI

1. Where any dosage forms or package sizes of products containing any of the types of drugs listed under IV are sold to others for resale under a trade name different from your own trade name, furnish a list of all such other trade names, the products covered, and the name and address of each purchaser of such products, together with the dollar volume of purchases of each product type by each such purchaser for the same period used in III.

2. If any sales of products containing any of the types of drugs listed under IV were made in unlabeled packages, or in bulk, specify the products and furnish the name and address of each purchaser, together with the dollar volume of purchases of each product type by each such purchaser for the same period used in III.

VII

For the period January 1, 1959 to date, furnish a copy of each price list, sheet, or announcement issued or in effect, and any document (whether distributed or not) announcing or concerning prices, discounts, allowances, rebates, free goods, or any other adjustment to price, for any and all of the prescription drugs and drug products listed by your company in response to V.

VIII

For the period January 1, 1959 to date, with respect to each prescription drug and drug product listed under V, report:

1. Manufacturing locations.

2. Type and number of sales force (missionary and detail men, commission men, etc.) with a short explanation of their respective duties.

3. All classifications and categories of customers for pricing purposes, such as but not limited to the following:

(a) independent druggists

(b) chain stores

(c) doctors

(d) veterinarians

(e) city, county, state agencies and institutions

(f) federal agencies and institutions

(g) private hospitals and clinics

(h) drug wholesalers

(i) other wholesalers

(j) mail order houses

(k) industrial plants

(l) department stores

4. According to customer classification or category, the price, type of discount (including quantity and annual volume), and rate or amount of discount granted to each classification or category.

5. Each other price concession of whatever nature, including trade plans, purchase plans, and free goods, accorded to each customer classification or category.

6. Each type of advertising or promotional allowance, the classification or category of customers to whom extended, and copies of announcements and methods of notification of the availability of such allowance to each customer classification or category.

7. Each type of service and facility, the classification or category of customers to whom extended, and copies of announcements and methods of notification of the availability of such service and facility to each customer classification or category.

IX

Report which of the classifications or categories of customer, if any, reported in answer to VIII (3) are not permitted to resell to all types and classes of customers. Report the classes of resale customers so restricted, if any, and explain the restrictions.

X

If during the period since January 1, 1959 to date, any of the prescription drugs and drug products listed in your answer to V were not offered for sale in your full range of package sizes to all classifications or categories of customers reported in your answer to VIII (3), then identify such products, and the package sizes available to each customer classification or category.

XI

For the same period used in answering III, furnish a list of all the customers who purchased any of the prescription drugs and drug products listed in response to V, where such customer is located in or purchasing for resale in:

Kansas City, Missouri
Los Angeles, California
New Orleans, Louisiana
Newark, New Jersey
Washington, D. C.

For each customer listed above, report:

1. Name and address (including buying headquarters if located elsewhere).

2. Customer classification or category as reported in your answer to VIII (3).

3. Total combined dollar volume of purchases of prescription drugs and drug products listed in your answer to V.

4. For each customer granted, allowed or paid any (1) quantity discount, (2) annual volume or other rebate, (3) handling or distribution allowance, (4) free goods, (5) promotional or advertising allowance, (6) service or facility in any form, or (7) any other consideration amounting to a lower price adjustment, report for each prescription drug and drug product, where any of the foregoing are granted, allowed or paid, the total dollar sales of such product to such customer on such product under each of the foregoing seven separate categories.

XII

Furnish one copy of each type or form of franchise, agency, sales, distribution or other agreement covering prescription drugs and drug products, in effect with any customer at any time during the period January 1, 1959 to date, together with any amendments, riders, changes or limitations thereto in effect during said period.

XIII

For the period January 1, 1960 to date, furnish a copy covering each type of advertisement published or disseminated, such as leaflets, brochures, pamphlets, professional journal advertisements, tear sheets, posters, cartoons, articles, drawing, prints of speeches, radio scripts, and television scripts (together with a copy of the filmed commercial) used or disseminated in connection with the sale, promotion or introduction of any and all of the prescription drugs and drug products listed in response to V, which mentions or advises of the claimed therapeutic effect, symptomatic relief, or of the side effects, of such prescription drugs or drug products.

XIV

Furnish a sample copy of each label, or labels, under which each of the prescription drugs and drug products listed in your answer to question V were sold or distributed during the period January 1, 1959, to date. Where any dosage form or package size has been sold to one customer classification or category under a caution label different in its wording from the caution label on dosage forms or package sizes of the same prescription drug or drug product when sold to any other customer classification or category, furnish a copy of each label and explain the reason for the use of such different label for different customer classifications.

You are advised that Section 10 of the Federal Trade Commission Act provides for penalties for failure to file Special Reports within

the time fixed by the Commission. Penalties for filing false reports are also provided. The Special Report called for in this Order is to be filed within forty-five (45) calendar days from the date received.

By direction of the Commission.

Joseph W. Shea, (signed)
Secretary

APPENDIX VII

SELECTED EXAMPLES AND STARCH EVALUATIONS OF CURRENT JOURNAL ADS

RANK	ADVERTISEMENT	AVERAGE SEEN-ASSOCIATED (STARCH)
1	Medrol - Psoriasis	36
2	Medrol - Family	30
3	Medrol - Contact dermatitis	29
4	Panalba	25
5	Adeflor	24
6	Medrol - Asthma	22
7	Provera	18
8	Orinase - Diagnosis	17.5
9	Orinase - 5 years	17
10	Didrex	16

Comments:

1. Technical information - case histories - on an older product can achieve high interest and readship. Medrol is an example.

2. A new product that involves a new concept of treatment can achieve high interest which results in high scores. Adeflor is an example.

3. While it is difficult to boost readership on an older product where there is no unique medical information, it can be done. The compelling graphics and simplicity of the Panalba ads is an example.

4. The readership of an ad is based on a variety of factors--impact of the ad itself, its position in the publication, the physician readership in the particular issue, current interest in the use of the product from a therapeutic standpoint, the relative position of the product in the market.

5. Scoring of individual ads is one helpful way to measure the effectiveness of the message (or campaign) over a period of time and to compare results with the previous campaign. It is not an end in itself but a valuable guide.

Photographs courtesy of Lawrence Frank, M.D.

The case illustrated here is that of a 34-year-old woman. Psoriatic areas treated with Medrol Acetate, Veriderm 0.25% and wrapped with occlusive dressings cleared completely in 12 days.

Psoriasis cleared in 12 days with Medrol® Veriderm*

ACETATE

Medrol Acetate, Veriderm provides prompt control of dermatoses. Because the Veriderm base simulates the oils found in normal human skin, optimal anti-inflammatory activity of the Medrol content is favored.

Less greasy than an ointment, less drying than a lotion, Medrol Acetate, Veriderm spreads evenly and is cosmetically well accepted.

Medrol Acetate, Veriderm is indicated in atopic-, contact-, or seborrheic dermatitis, neurodermatitis, and in anogenital and allergic pruritus. Neo-Medrol Acetate, Veriderm (containing the antibiotic, neomycin sulfate) is indicated when dermatoses are complicated by infection. Prompt control of excessive tissue reaction to allergens, irritants, and trauma may be anticipated following the topical use of Medrol.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn
The Upjohn Company
Kalamazoo, Michigan

Medaprin* Tablets
in bottles of 100 and 500

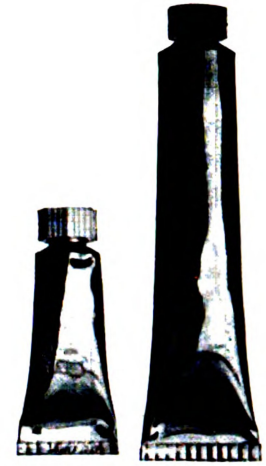
Solu-Medrol*
40 mg. in 1 cc.
Mix-O-Vial*

Depo-Medrol*
(acetate)
40 mg./cc.
in 1 cc. and
5 cc. vials
20 mg./cc.
in 5 cc. vials

Medrol* Tablets
2 mg. in bottles
of 30 and 100
4 mg. in bottles
of 30, 100 and 500
16 mg. in bottles of 50

Medrol with Orthoxine* Tablets
in bottles of 30 and 100

Medrol Medules*
4 mg. in bottles of
30, 100 and 500
capsules
2 mg. in bottles
of 30 and 100



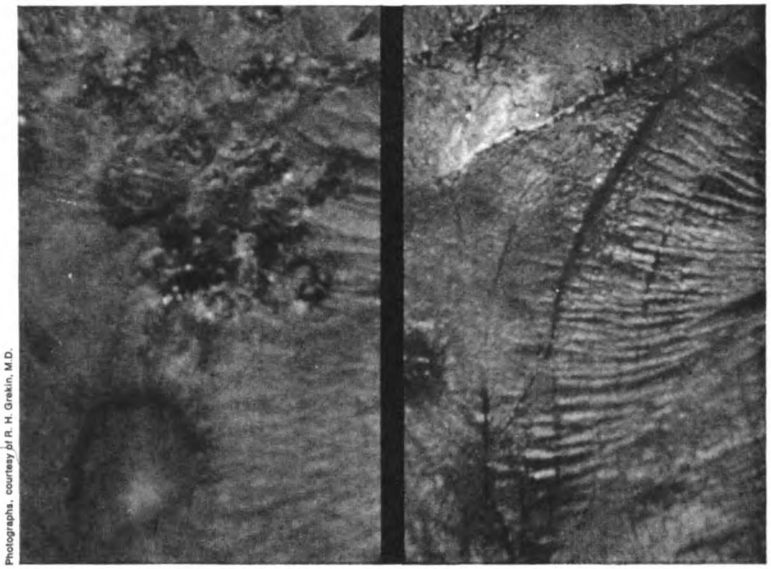
VeridermMedrol**
(acetate)
and Neo-Medrol*
(acetate)
0.25% and 1%
in 5- and 20-Gm. tubes

The only difficult decision involved in steroid therapy is which form of Medrol to use.
(methylprednisolone)

*Trademark, Reg. U.S. Pat. Off.
**Trademark

Upjohn
The Upjohn Company, Kalamazoo, Michigan

Contact dermatitis cleared in 8 days with Neo-Medrol® Veriderm*
ACETATE



Photographs, courtesy of R. H. Grekin, M.D.

Acute contact dermatitis of unknown cause on the right palm of an 11-year-old female.
The result shown was achieved after 8 days of treatment with 0.25% Neo-Medrol Acetate, Veriderm.

Dosage and Administration—Cleanse affected skin, apply and rub in gently 1 to 3 times daily. With psoriasis — wash lesion, apply Medrol Acetate, Veriderm (methylprednisolone acetate), 0.25% and cover with an occlusive dressing of Saran Wrap† or similar material. Leave dressing in place for 12 to 24 hours or longer before repeating procedure.

Cautions and Contraindications: Local application of these preparations is contraindicated in tuberculosis of the skin and in other cutaneous infections for which an effective antibiotic or chemotherapeutic agent is not available for simultaneous application. These preparations are usually well tolerated. However, if signs of irritation or sensitivity should develop, application should be discontinued. If a bacterial infection should develop during the course of therapy, appropriate local or systemic antibiotic therapy should be instituted.

The use of Medrol (methylprednisolone) systemically is contraindicated in arrested tuberculosis, peptic ulcers, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, and varicella. Use cautiously in active tuberculosis, diabetes mellitus, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, and pregnant patients, particularly during the first trimester. Observe newborn infants of these mothers for signs of hypoadrenalism. Long-term use may suppress adrenal gland function; observe patients accordingly.

Methylprednisolone may mask signs of and spread infection; hence, watch all patients closely and employ antibacterial measures if intercurrent infection occurs.

Supplied: 0.25% and 1% in 5 Gm. and 20 Gm. tubes.

Neo-Medrol Acetate, Veriderm and Medrol Acetate, Veriderm (methylprednisolone acetate) provide prompt control of dermatoses. Because the Veriderm base simulates the oils found in normal human skin, optimal anti-inflammatory activity of the Medrol (methylprednisolone) content is favored.

Less greasy than ointment, less drying than lotion, these Veriderm formulations spread evenly and are cosmetically well accepted.

Medrol Acetate, Veriderm (methylprednisolone acetate) is indicated in atopic-, contact-, or seborrheic dermatitis, neurodermatitis, and in anogenital- and allergic pruritus. Neo-Medrol Acetate, Veriderm (containing the antibiotic neomycin sulfate) is indicated when dermatoses are complicated by infection. Prompt control of excessive tissue reaction to allergens, irritants, and trauma may be anticipated following the topical use of Medrol (methylprednisolone).

Neo-Medrol Veriderm
ACETATE

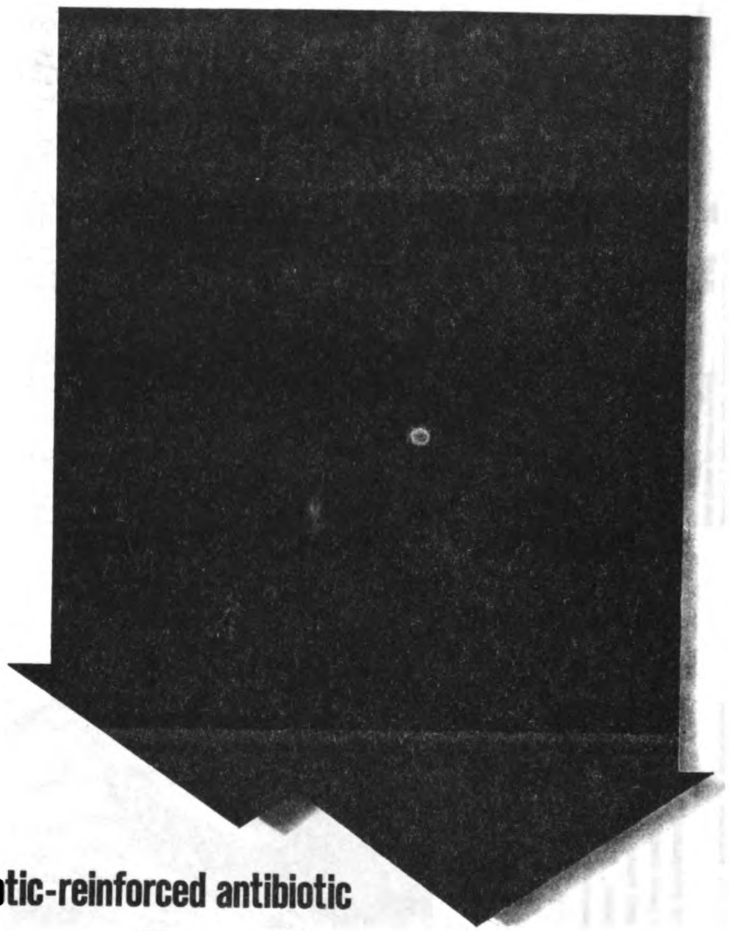
0.25% — Each gram contains:		1% — Each gram contains:	
Medrol (methylprednisolone) Acetate (0.25%)	2.5 mg.	Medrol (methylprednisolone) Acetate (1%)	10 mg.
Neomycin Sulfate (equivalent to 3.5 mg. neomycin base)	5 mg.	Neomycin Sulfate (equivalent to 3.5 mg. neomycin base)	5 mg.
Methylparaben	4 mg.	Methylparaben	4 mg.
Butyl-p-hydroxybenzoate	3 mg.	Butyl-p-hydroxybenzoate	3 mg.

*Trademark

†Reg. Trademark of Dow Chemical Company

Upjohn

The Upjohn Company
Kalamazoo, Michigan



antibiotic-reinforced antibiotic

Panalba®
in otitis media

Broad-spectrum tetracycline, reinforced with novobiocin to protect against resistant staph.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn
THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

this baby already has 20 teeth

When his deciduous teeth began to form *in utero*, they were already setting the pattern for the permanent teeth which follow. Will his teeth be strong? Caries-resistant?

There is now a way that you can help assure expectant mothers and their children that the answers to these questions can be "yes." For now you can provide the fluoride supplementation necessary to significantly reduce caries.

What does fluoride accomplish? As an example, a long-term study has shown 90% reduction in tooth decay when fluoride supplementation was begun *in utero* and continued through childhood. When begun at birth, fluoride supplementation can reduce tooth decay by 60 to 70%.[1]

In the critical formative years of tooth development, before children visit a dentist, only you can provide fluoride protection. And you can provide it at no extra cost to the patient. Upjohn now has three nutritional supplements containing fluoride, one for each stage of tooth development . . .

1. Blayney, J.R.: J. Am. Dental Assoc. 61:76, 1960.

now 3 fluoride-vitamin supplements

Adeflor* | IN UTERO Adeflor Prenatal | TO AGE 3 Adeflor Drops | TO AGE 18 Adeflor Plus

for tomorrow's dentition . . . for today's nutrition

Adeflor products cost no more than vitamins and minerals alone

In utero: Adeflor Prenatal
Each tablet contains:

Vitamin A	1.8 mg.
Vitamin D	10 mcg.
Thiamine mononitrate	1.5 mg.
Riboflavin	2.5 mg.
Ascorbic acid (from sodium ascorbate)	100 mg.
Nicotinamide	20 mg.
Pyridoxine hydrochloride	10 mg.
Calcium pantothenate	10 mg.
Vitamin B_{12} activity	2 mcg.
Folic acid	0.4 mg.
Fluoride (from sodium fluoride)	1 mg.
Calcium from calcium carbonate)	250 mg.
Iron (from ferrous sulfate)	15 mg.

Dosage: 1 tablet daily. **Supplied:** in bottles of 100 tablets.

to age 3: Adeflor Drops
Each 0.6 cc. contains:

Fluoride (from sodium fluoride)	**0.5 mg.**
Vitamin A	**0.6 mg.**
Vitamin D	**10 mcg.**
Ascorbic acid	**50 mg.**
Pyridoxine hydrochloride (B_6)	**1 mg.**

Dosage: Infants and children up to 3 years of age—0.6 cc. daily. Supplied: in 15, 30, and 50 cc. dropper bottles with each dropper calibrated for 0.6 cc. dosage.

to age 18: Adeflor Plus
Each chewable tablet contains:

Fluoride (from sodium fluoride)	0.5 mg.
Vitamin A	1.2 mg.
Vitamin D	10 mcg.
Ascorbic acid (from sodium ascorbate)	75 mg.
Thiamine mononitrate	2 mg.
Riboflavin	2 mg.
Nicotinamide	18 mg.
Pyridoxine hydrochloride	1 mg.
Calcium pantothenate	5 mg.
Vitamin B_{12} activity	2 mcg.

Dosage: Children 3 years or older—one tablet daily. **Supplied:** in bottles of 50 chewable tablets.

Caution: Do not exceed recommended dose; excessive fluoride intake may result in dental fluorosis. Adeflor Prenatal and Adeflor Plus are contraindicated when intake of fluorine from drinking water exceeds 0.5 mg. daily. Adeflor Drops is contraindicated when intake of fluorine from drinking water exceeds 0.3 mg. daily.

Occasional fluoride skin reactions: eczema, atopic dermatitis, and urticaria. Overdoses from 25 to 50 mg. reported to cause gastrointestinal distress, nausea, vomiting, and diarrhea.

Upjohn *Trademark

The Upjohn Company, Kalamazoo, Michigan.

In bronchial asthma

Clinical results with single injections of Depo-Medrol®
(methylprednisolone acetate)

Number of patients

16 (children)

Severity of symptoms

very severe	3 patients
severe	3 patients
moderately severe	10 patients

Therapy

Depo-Medrol, single deep intragluteal injection of 1 to 3 cc. (1 to 2 mg. Medrol per lb. body weight).

Indications, Dosage, and Administration: Intramuscular – acute allergic conditions, 80 to 120 mg. at weekly intervals for 1 to 4 weeks. Administer deeply into gluteal muscles.

Depo-Medrol should not be diluted or mixed with other solutions.

Formulas	20 mg. per cc.	40 mg. per cc.
Medrol (methylprednisolone acetate)	20 mg.	40 mg.
Polyethylene glycol 4000	30.0 mg.	30.0 mg.
Sodium chloride	8.0 mg.	8.7 mg.
Myristyl-gamma-picolinium chloride	0.10 mg.	0.10 mg.
Water for injection	q.s.	q.s.

Supplied: 40 mg./cc. in 1 cc. and 5 cc. vials; 20 mg./cc. in 5 cc. vials.

Cautions: Contraindicated in arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, and varicella. Use cautiously in active tuberculosis, diabetes mellitus, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, and pregnant patients, particularly during first trimester. Observe newborn infants of these mothers for signs of hypoadrenalism.

Low incidence of common steroid side effects. Long-term use may suppress adrenal gland function, observe patients accordingly. Medrol may mask signs of and spread infection, hence watch all patients closely and employ antibacterial measures if intercurrent infection occurs.

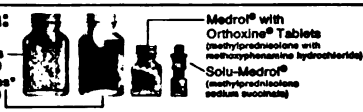
*Trademark, Reg. U.S. Pat. Off.
An Upjohn brand of methazolamide for prolonged action.

The Upjohn Company
Kalamazoo, Michigan
upjohn

Dugger, J. A.: Clin. Med. 69:2253 (Oct.) 1962.

Speed of relief	3 to 6 hours	9 patients
	7 to 12 hours	5 patients
	13 to 18 hours	2 patients
Duration of relief	21 days or more	5 patients
	14 to 20 days	6 patients
	7 to 13 days	4 patients
	6 days	1 patient
Evaluation of results	excellent	9 patients
	good	6 patients
	fair	1 patient
	poor	0

Also applicable in asthma:



Medrol®
methylprednisolone


salvageable...
Provera®
80% of potentially salvageable pregnancies were preserved[1]
Also available: intramuscular Depo-Provera®.
Reminder advertisement. Please see package insert for detailed product information.
1. Soule, S.D., et al.: Fertility and Sterility 11:603 (Nov.-Dec.) 1960.
Upjohn
®—brand of medroxyprogesterone acetate. Upjohn. Copyright 1962, The Upjohn Company, Kalamazoo, Michigan.

1. Miller, E. D., Jr., and Roller, G. W.: M. Times 89:196 (Feb.) 1961.

Indications and effects: The clinical indication for Orinase is stable diabetes mellitus. Its use brings about the lowering of blood sugar; glycosuria diminishes, and such symptoms as pruritus, polyuria, and polyphagia are alleviated.

Dosage: There is no fixed regimen for initiating Orinase therapy. A simple and effective method is as follows: **First day**—6 tablets; **second day**—4 tablets; **third day**—2 tablets. The daily dose is then adjusted—raised, lowered or maintained at the two-tablet level, whichever is necessary to maintain optimum control.

Patients receiving insulin (less than 20 units)—discontinue insulin and institute Orinase; (20 to 40 units)—initiate Orinase with a concurrent 30 to 50% reduction in insulin dose with a further careful reduction as response to Orinase is observed; (more than 40 units)—reduce insulin by 20% and initiate Orinase with a further careful reduction in insulin dosage as response to Orinase is observed. In candidates for combined Orinase-insulin therapy, an individualized schedule is usually obtainable during a trial course of two or more weeks.

Contraindications and side effects: Orinase is contraindicated in patients having juvenile or growth-onset, unstable or brittle types of diabetes mellitus; history of diabetic coma, fever, severe trauma or gangrene.

Side effects are mild, transient and limited to approximately 3% of patients. Hypoglycemia and toxic reactions are extremely rare. Hypoglycemia is most likely to occur during the period of transition from insulin to Orinase. Other untoward reactions to Orinase are usually not of a serious nature and consist principally of gastrointestinal disturbances, headache, and variable allergic skin manifestations. The gastrointestinal disturbances (nausea, epigastric fullness, heartburn) and headache appear to be related to the size of the dose, and they frequently disappear when dosage is reduced to maintenance levels or the total daily dose is administered in divided portions after meals. The allergic skin manifestations (pruritus, erythema, and urticarial, morbilliform, or maculopapular eruptions) are transient reactions, which frequently disappear with continued drug administration. However, if the skin reactions persist, Orinase should be discontinued.

Clinical toxicity: Orinase appears to be remarkably free from gross clinical toxicity on the basis of experience accumulated during more than four years of clinical use. Crystalluria or other untoward effects on renal function have not been observed. Long-term studies of hepatic function in humans and experience in over 700,000 diabetics have shown Orinase to be remarkably free of hepatic toxicity. There has been reported only one case of cholestatic jaundice related to Orinase administration, which occurred in a patient with pre-existing liver disease and which rapidly reversed upon discontinuance of the drug.

Each tablet contains:

Tolbutamide ..... 0.5 **Gm.**

Supplied: In bottles of 50 and 200.

Orinase

Upjohn

The Upjohn Company, Kalamazoo, Michigan

*Trademark, Reg. U.S. Pat. Off.—tolbutamide, Upjohn

January 1962

Orinase Case History

5 years of control

Orinase dosage 1 gm.

Insulin

Mrs. M. C. is a 69-year-old housewife with a family history of diabetes. In November, 1955, she was discovered to have hyperglycemia and glycosuria, and was started on insulin. The patient was transferred to Orinase therapy in August, 1956; control was established with a dose of 1 gm. (2 tablets) daily.

Mrs. C. and her husband live the quiet life of semiretirement in a seaside town. The patient did well on Orinase and, in October, 1957, the dosage was reduced to 1 tablet daily.

At this 0.5 gm. level, good control was maintained for three years. However, in October, 1960, glycosuria appeared, necessitating an increase of Orinase dosage to 1.5 gm. daily; in April, 1961, the dosage was further increased (to 2 gm. daily), but glycosuria persisted. Oral therapy was stopped and the patient was put on insulin, 12 units daily.

The following month, Mrs. C. was hospitalized because of persistent anterior chest pain; the diagnosis was acute myocardial infarction. During patient's first 2 weeks in the hospital, she was kept on insulin, up to 40 units daily. Thereafter, Orinase therapy was resumed, and control was achieved with dosage of 1 gm. daily.

Following an uneventful recovery, Mrs. C. was discharged from the hospital a month after admission. She returned to her accustomed pursuits (such as the hobby of making bead costume jewelry).

Mrs. C.'s diabetes remains controlled on routine dosage of 1 gm. Orinase daily. She continues to live her normal life and to enjoy such easygoing pleasures as fishing off a pier.

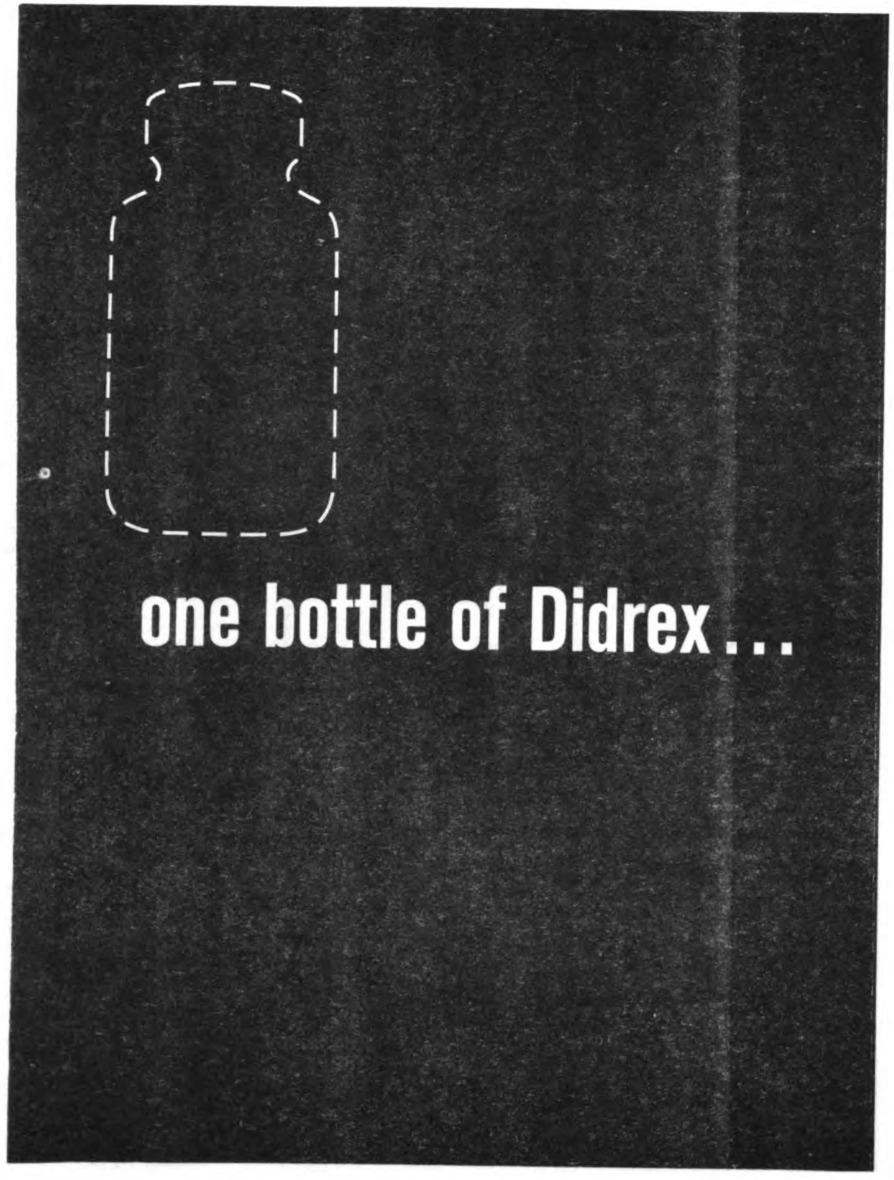
*TRADEMARK, REG. U.S. PAT. OFF. — TOLBUTAMIDE, UPJOHN

Among oral agents for the treatment of diabetes, Orinase* (tolbutamide) stands in a unique position. It alone has had five years or more of day-to-day routine clinical use in the hands of thousands of physicians throughout the country. Accordingly, there are by now a considerable number of truly long-term Orinase-treated patients. This series of Orinase five-year case histories has been prepared to illustrate and exemplify some aspects of actual experience in management. Patient data made available to us by the respective physicians have been factually incorporated; however, patients' identities have been concealed. Any inquiries regarding this Orinase case history series should be addressed to: Medical Department, The Upjohn Company, Kalamazoo, Michigan.

Orinase is supplied in bottles of 50 and 200 tablets.
Each tablet contains: Tolbutamide ... 0.5 gm.
Reminder advertisement. Please see package insert for detailed product information.

Upjohn

The Upjohn Company, Kalamazoo, Michigan



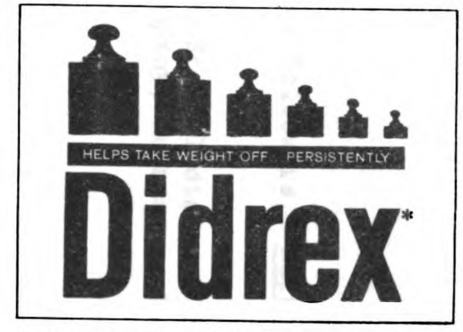
and 7 lbs.

In a recent double-blind study, 24 overweight patients lost an average of 7 lbs. each in four weeks on Didrex, 50 mg. t.i.d.[1]

Of particular significance is the fact that these patients were not placed on a special diet. This is strong confirmation of the appetite-suppressant action of Didrex. Four other double-blind studies have also demonstrated weight loss with Didrex, without dietary restriction.[2-5]

Duration of effectiveness. Persistent appetite suppression is still another advantage of Didrex therapy. In some cases where therapy is required over many months, Didrex continues to work. In one study Stough reports: "It was concluded from these data that appetite suppression associated with benzphetamine . . . was persistent and sustained as well for as long as 30 weeks."[5]

One 50 mg. tablet at 10 a. m.; one at 4 p. m. Dosages in double-blind studies on Didrex ranged up to 150 mg. a day. However, clinical experience has shown that a regimen of 50 mg. Didrex twice daily is effective in almost all cases, and for maximum results Didrex should be administered in conjunction with dietary restriction.



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